

Addition and Subtraction

***Conceptual Understanding
and
Student Practice***

2nd through 4th Grades

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Introduction and Pedagogical Recommendations

This unit on addition and subtraction of whole numbers that presses conceptual understanding is intended to provide classroom teachers with an off-the shelf curricular resource. Moreover, it can be efficiently implemented everyday regardless of the core lesson content designed for that school day. A teacher can provide a 5-minute spaced repetition or warm-up session using the enclosed resources before the onset of the core lesson. This resource is designed to incrementally build skill level intensity within a section as well as from section to section. However, a teacher can choose to skip around within a section. It is highly recommended that the teacher initially models the activity with their students, so they completely understand the salient points of the concepts. The student practice pages are divided into halves, so a teacher has the option to use the resource for a quick warm-up, transition activity or a homework assignment.

Section 1 begins with simple math fact problems in both addition and subtraction so children can understand the physical nature of the mathematics and the concept with small whole numbers. The only prerequisite skill in this section is basic addition and subtraction math facts under 20. However, math fact mastery can be achieved by each student if a daily numeracy program like Formative Loop is pressed earnestly each day. It is important to note that student mastery of all four math fact operations (i.e., addition, subtraction, multiplication and division) is a critically important skill to fully master when a student is in their elementary school years.

Section 2 is a numeracy building section so students will be adept when working with different divisions of whole number lines. The section covers the following multiples: 1's, 2's, 5's, 10's, 20's, 25's and 50's. Besides the need to master this skill as a prerequisite for the student practice sheets in Sections 3 and 4, skip counting or multiples is a valuable numeracy skill to procure in elementary school. It is recommended that the teacher practice these skills as part of a warm-up, but also provide student learning opportunities during transition periods or at the end of the core lesson when a few minutes of valuable class time remain. A teacher can ask students to turn over a sheet of paper to its blank side, and say, *"Write the multiples of 20 (or 25 or 50, etc.). You have 30 seconds."* Also, choral counting with the classroom as the teacher concurrently writes the multiples on the classroom white board is another efficient and effective means for students to master their multiples of 1, 2, 5, 10, 20, 25 and 50.

Section 3 of the enclosed unit reinforces the concepts from Section 1 in a variety of forms with two-digit whole numbers; whereas Section 4 presses the same concepts but with three-digit addition and subtraction problems/equations. This slow increase of difficulty from simple math facts to two- and three-digit numbers should provide students the ability to slowly gain confidence and understanding if the teacher is consistent with the daily and modeling implementation. It also clearly demonstrates that addition and subtraction's physical meaning does not change from basic math facts to larger whole numbers.

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Section 1

Modeling Addition and Subtraction

Whole Number Lines and Rectangular Strip Diagrams/Models

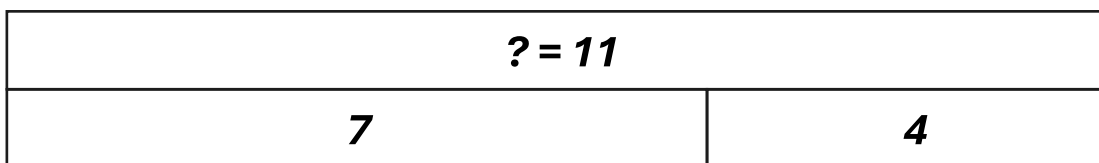
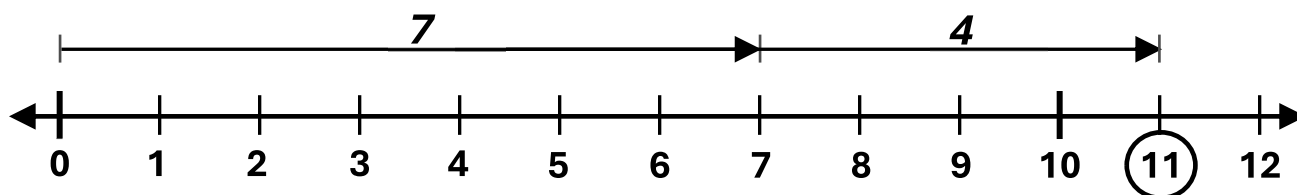
Small Numbers Less than 18

Student Practice Resource

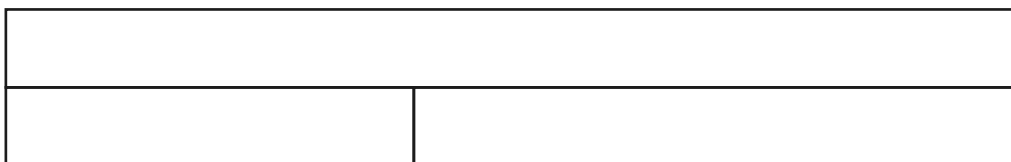
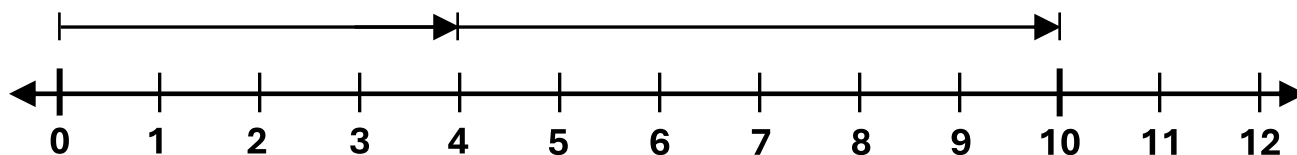
Addition and Subtraction – Conceptual Modeling – V1

Directions: Write the numbers on the whole number lines and in the rectangles to show the meaning of the addition or subtraction equation. Problem 1.) is an example for you.

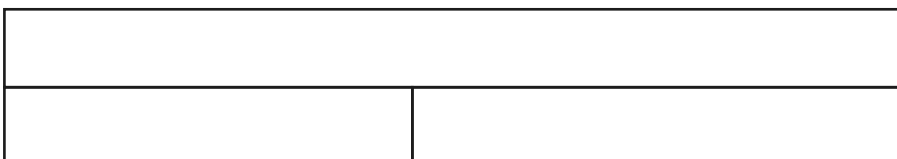
1.) $7 + 4 = ?$



2.) $4 + 6 = ?$



3.) $9 - 5 = ?$

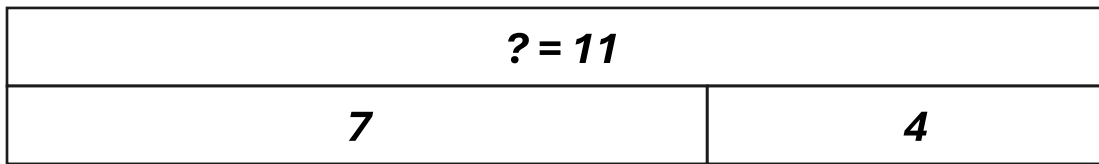
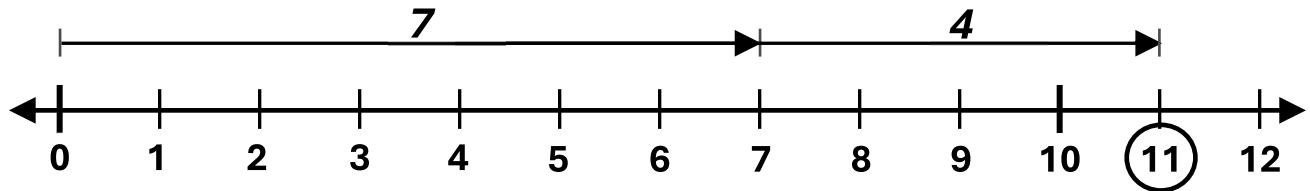


Addition and Subtraction – Conceptual Modeling – V1

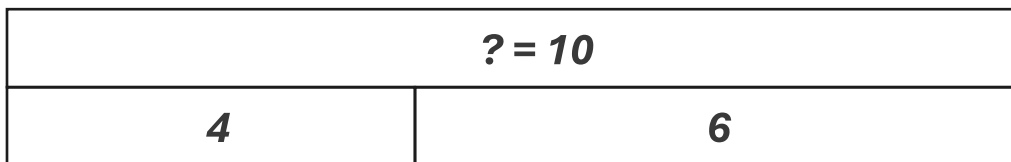
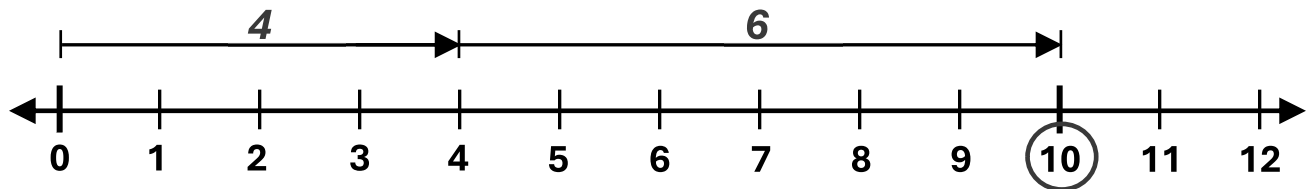
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1.) $7 + 4 = ?$

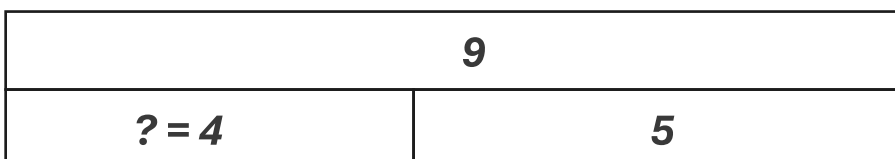
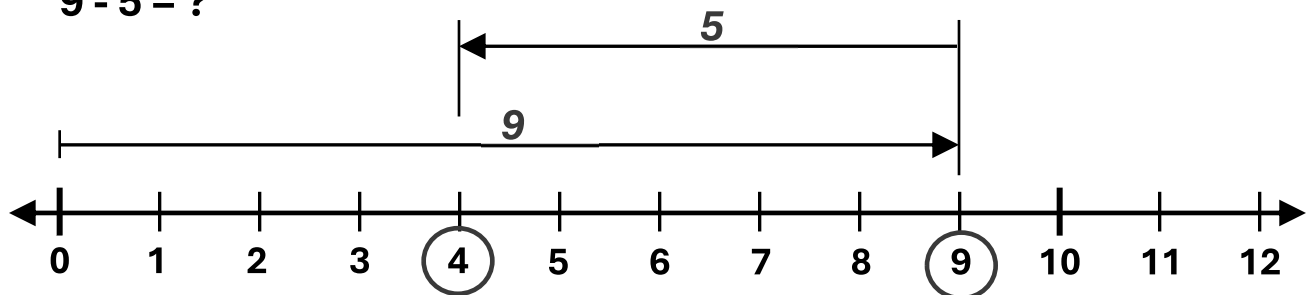
ANSWER KEY



2.) $4 + 6 = ?$



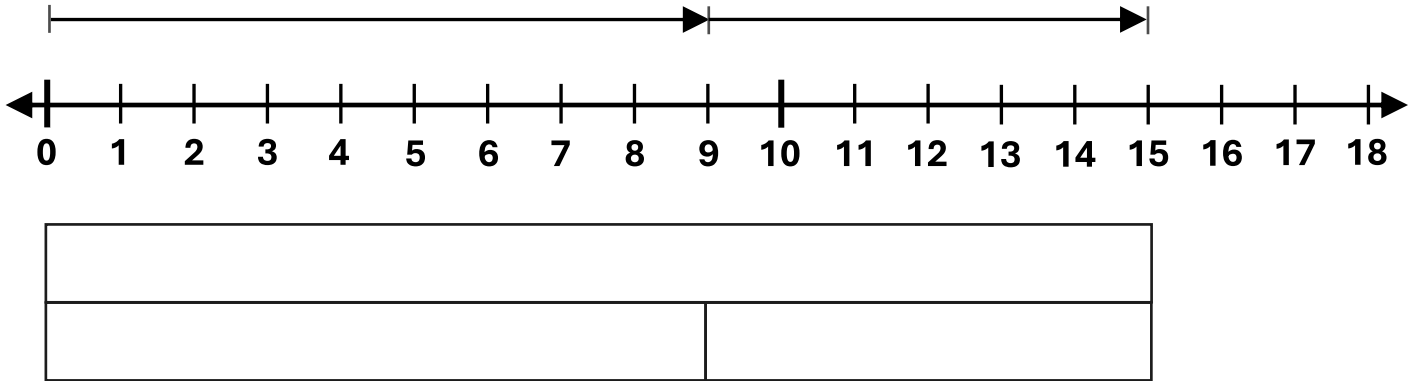
3.) $9 - 5 = ?$



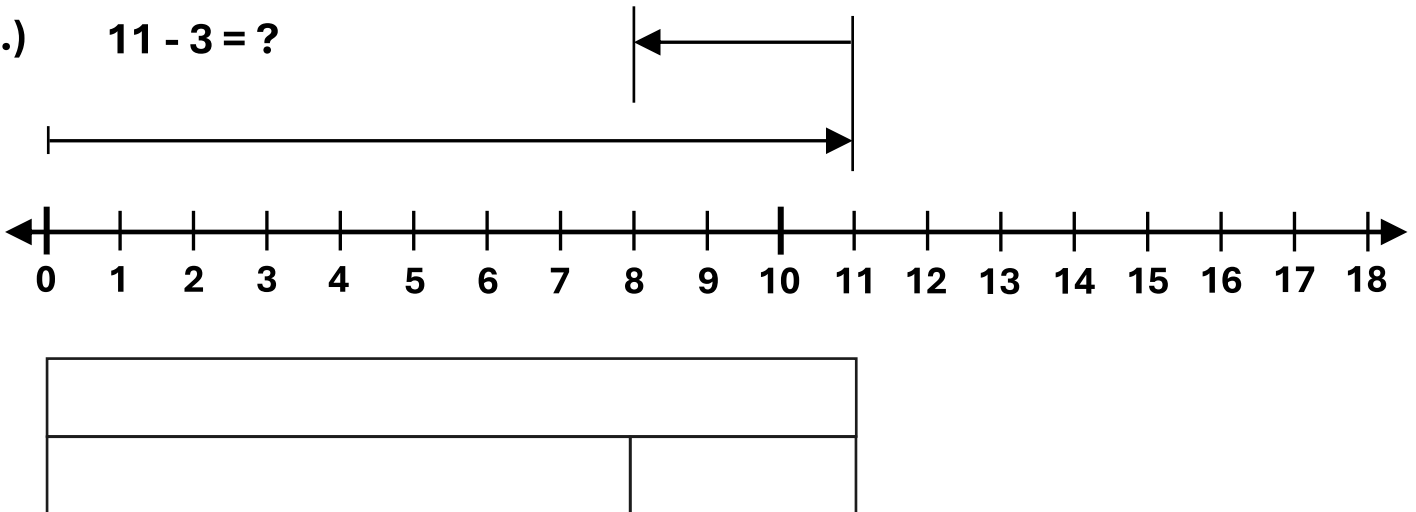
Addition and Subtraction – Conceptual Modeling – V2

Directions: Write the numbers on the whole number lines and in the rectangles to show the meaning of the addition or subtraction equation.

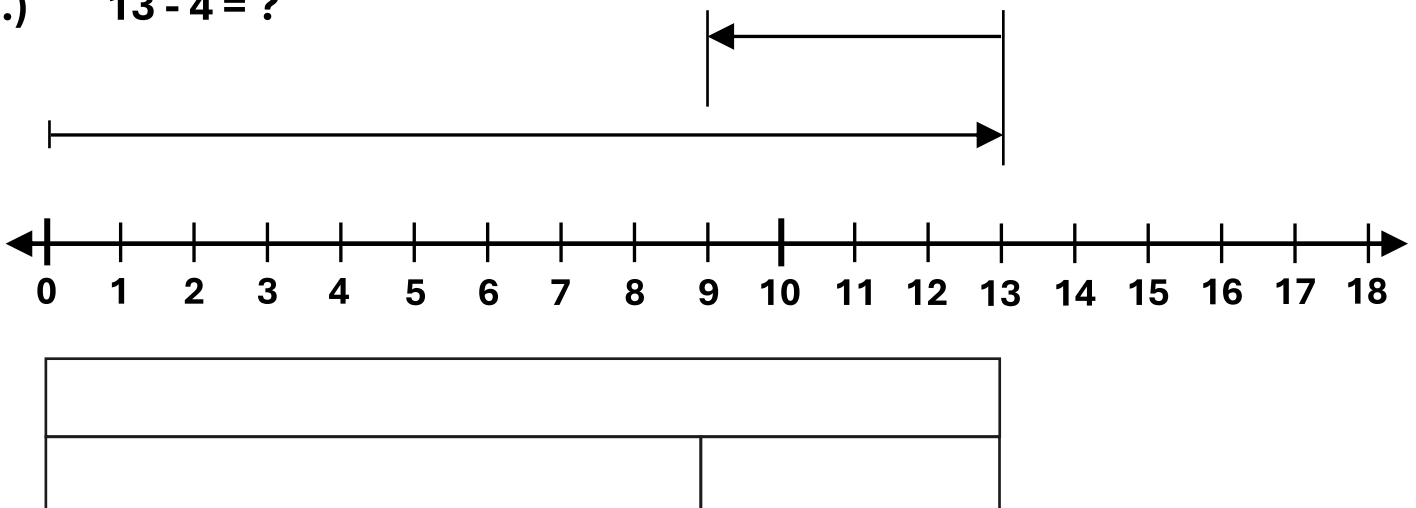
1.) $6 + 9 = ?$



2.) $11 - 3 = ?$



3.) $13 - 4 = ?$

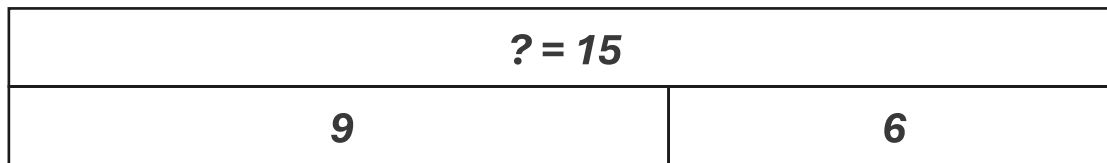
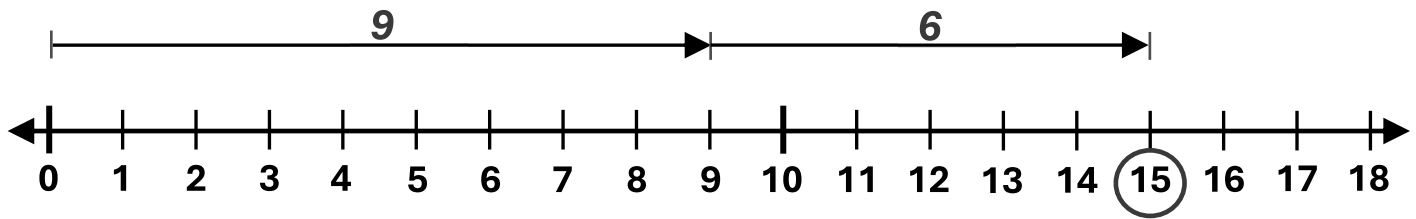


Addition and Subtraction – Conceptual Modeling – V2

Directions: Write the numbers on the whole number lines and in the rectangles to show the meaning of the addition or subtraction equation.

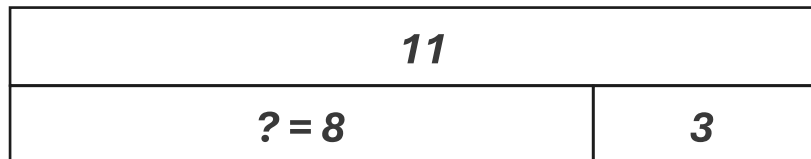
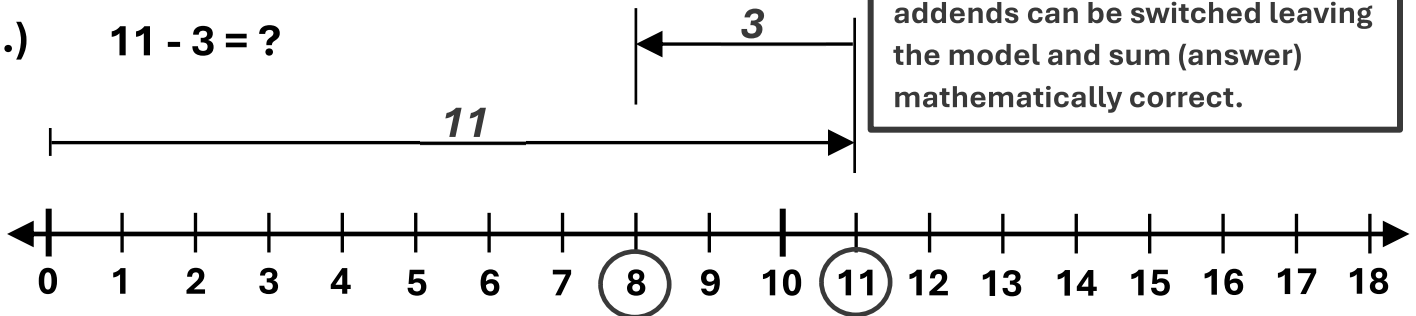
1.) $6 + 9 = ?$

ANSWER KEY

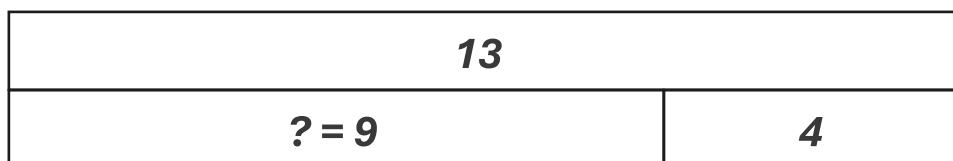
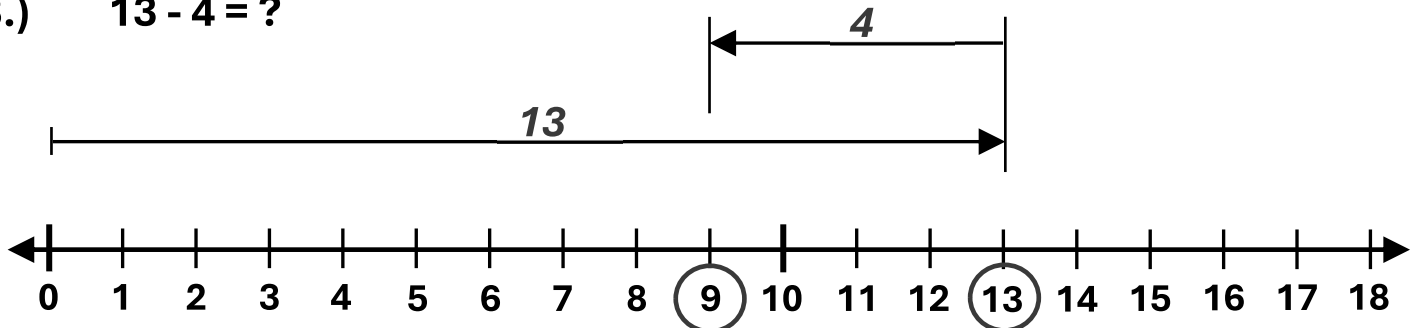


Note: Stress to Sts. that the addends can be switched leaving the model and sum (answer) mathematically correct.

2.) $11 - 3 = ?$



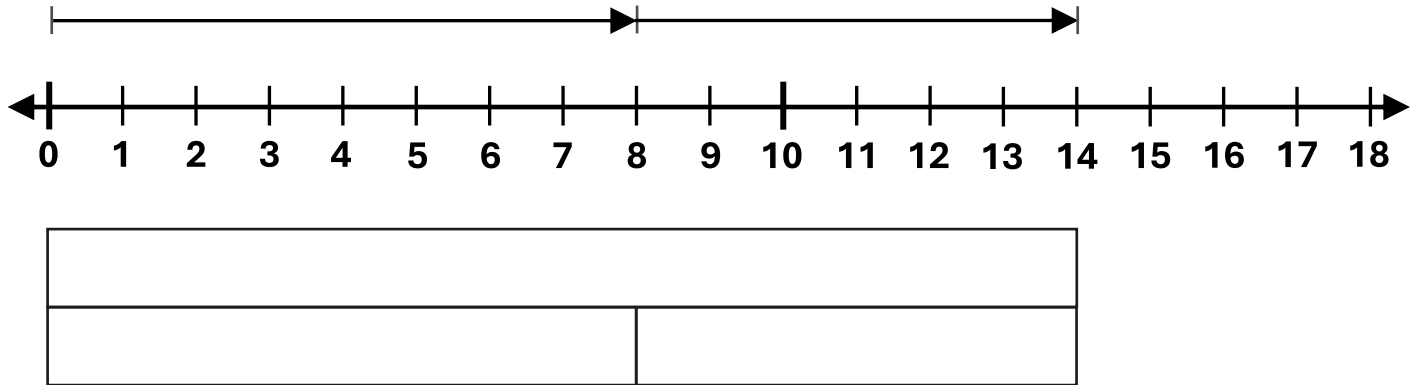
3.) $13 - 4 = ?$



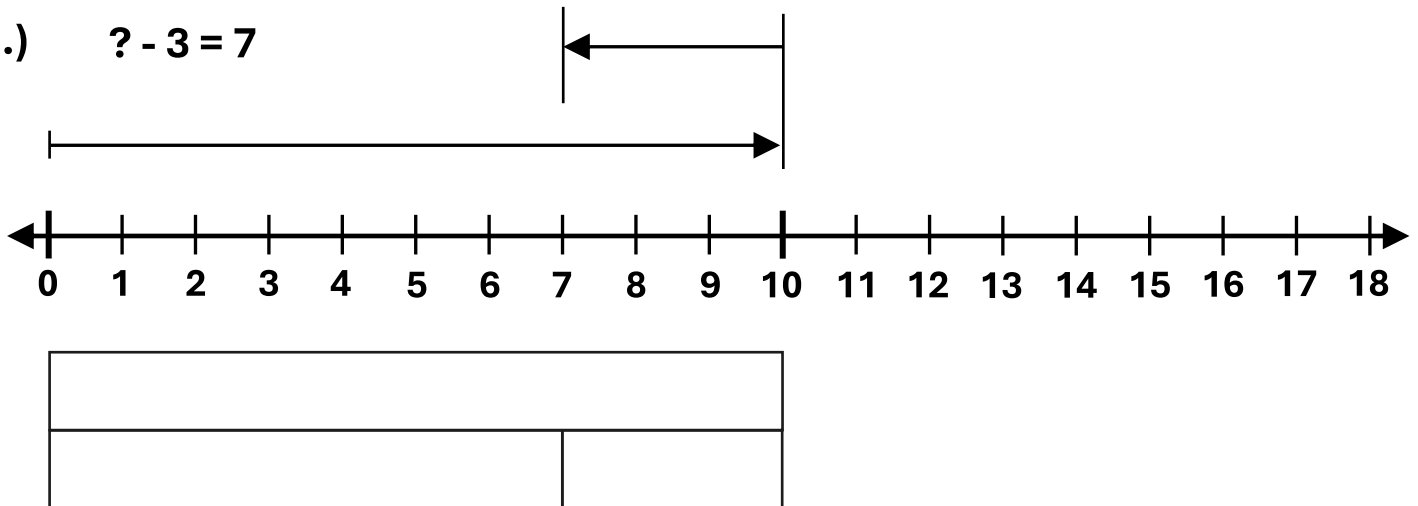
Addition and Subtraction – Conceptual Modeling – V3

Directions: Write the numbers on the whole number lines and in the rectangles to show the meaning of the addition or subtraction equation.

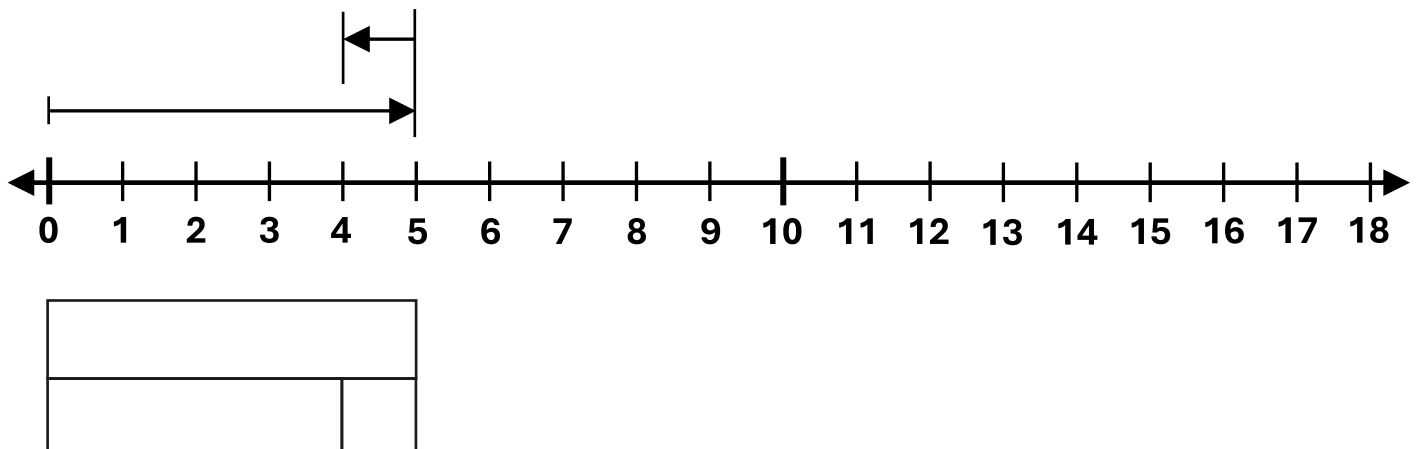
1.) $? + 8 = 14$



2.) $? - 3 = 7$



3.) $4 = ? - 1$ (careful - think)

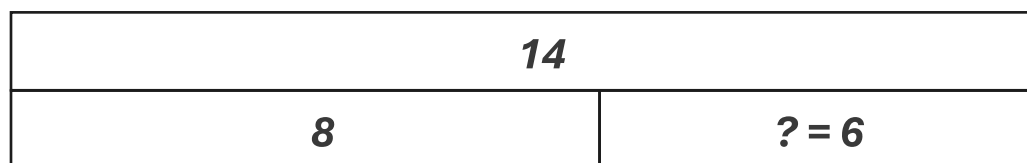
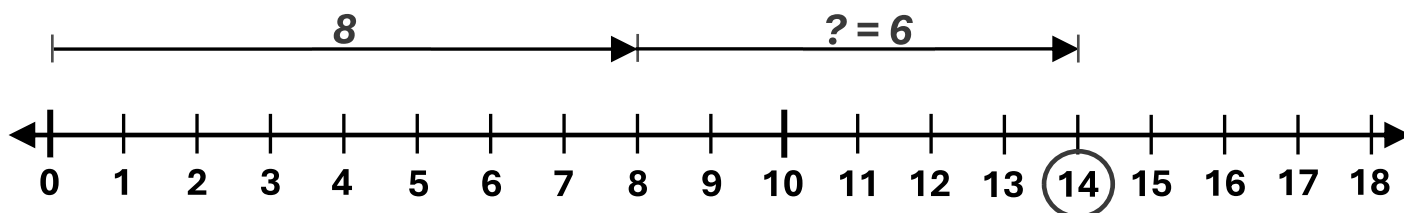


Addition and Subtraction – Conceptual Modeling – V3

Directions: Write the numbers on the whole number lines and in the rectangles to show the meaning of the addition or subtraction equation.

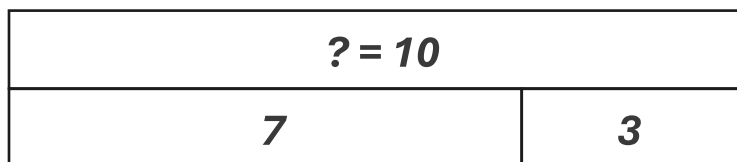
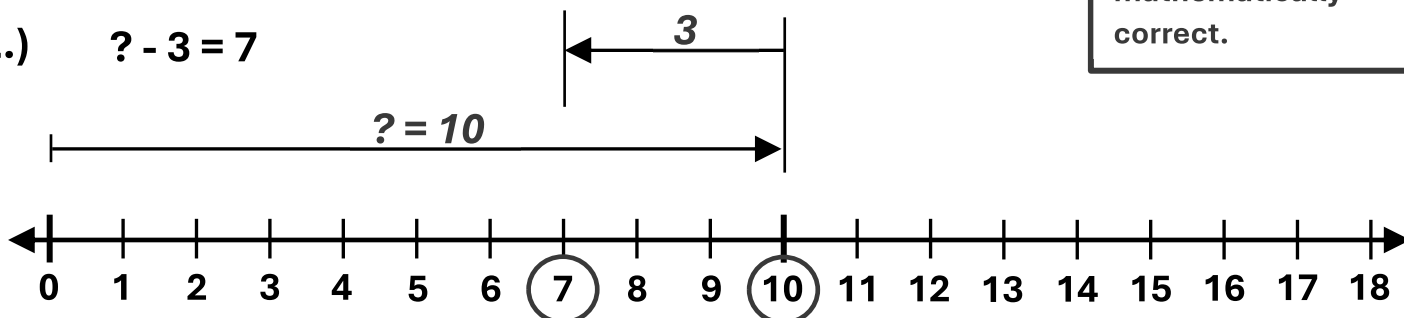
1.) $? + 8 = 14$

ANSWER KEY



Note: Stress to Sts. that the addends can be switched leaving the model and sum (answer) mathematically correct.

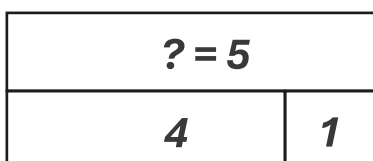
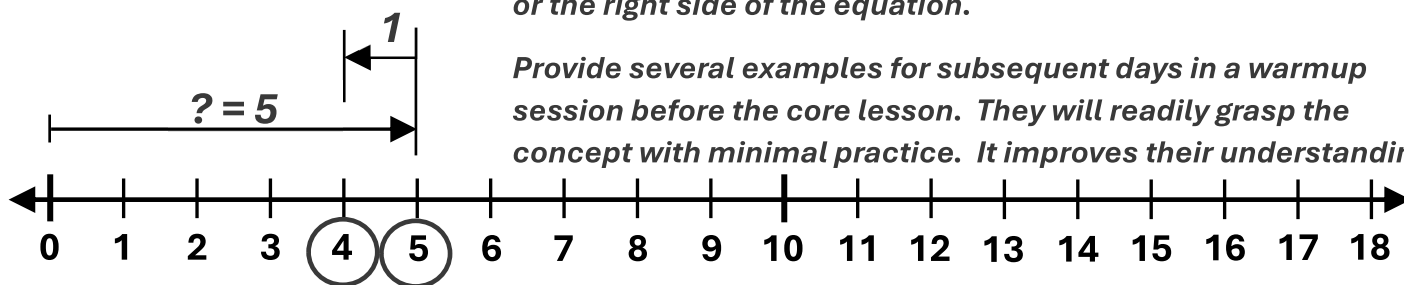
2.) $? - 3 = 7$



Note 1: Students can be taught to rewrite the equation to: $? - 1 = 4$. A more familiar form since we read from Right to Left.

3.) $4 = ? - 1$ (careful - think)

But the equal sign is always valid whether it is located on the left or the right side of the equation.



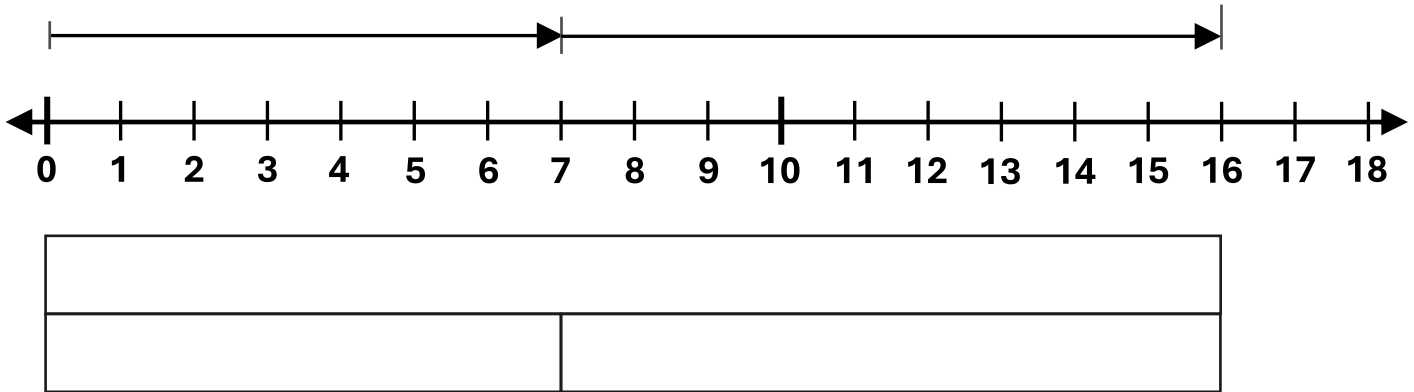
Provide several examples for subsequent days in a warmup session before the core lesson. They will readily grasp the concept with minimal practice. It improves their understanding.

Note 2: On students' initial attempt, they will think '3' is the answer...subtracting 1 from 4. It is recommended that they 'plug' 3 into the equation. $3 - 1 = 2$. Therefore, not 4. They are incorrect. Both quantities on each side of the equal sign must be the same. Example: $[4 = ? - 1]$ or $[4 = 5 - 1]$ or $[4 = 4]$ Easy check!

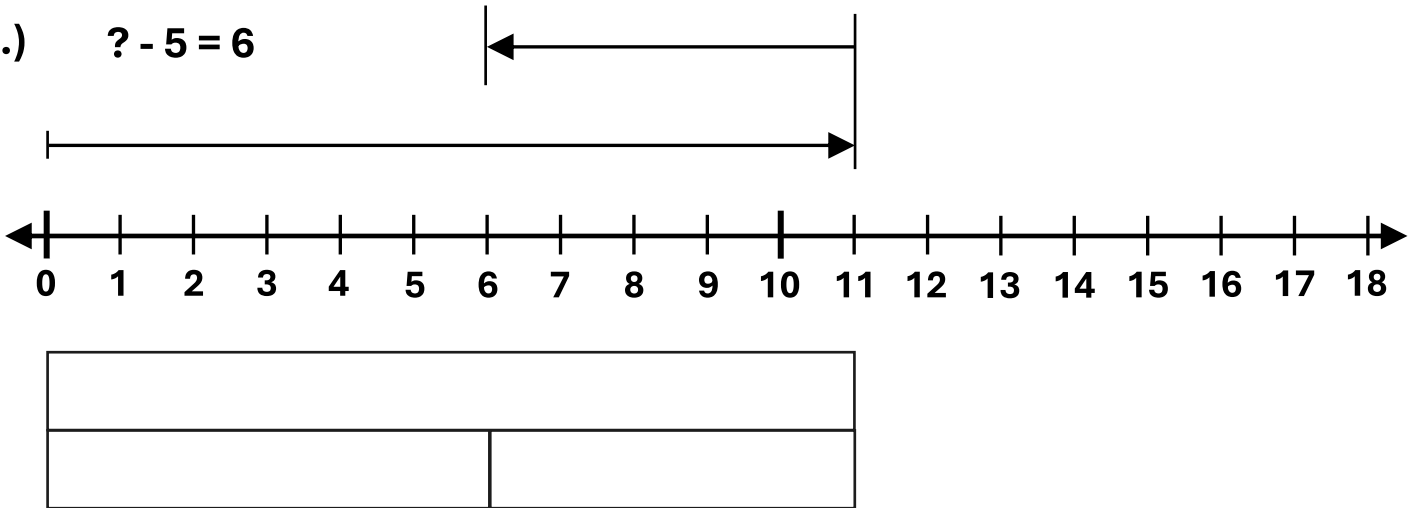
Addition and Subtraction – Conceptual Modeling – V4

Directions: Write the numbers on the whole number lines and in the rectangles to show the meaning of the addition or subtraction equation.

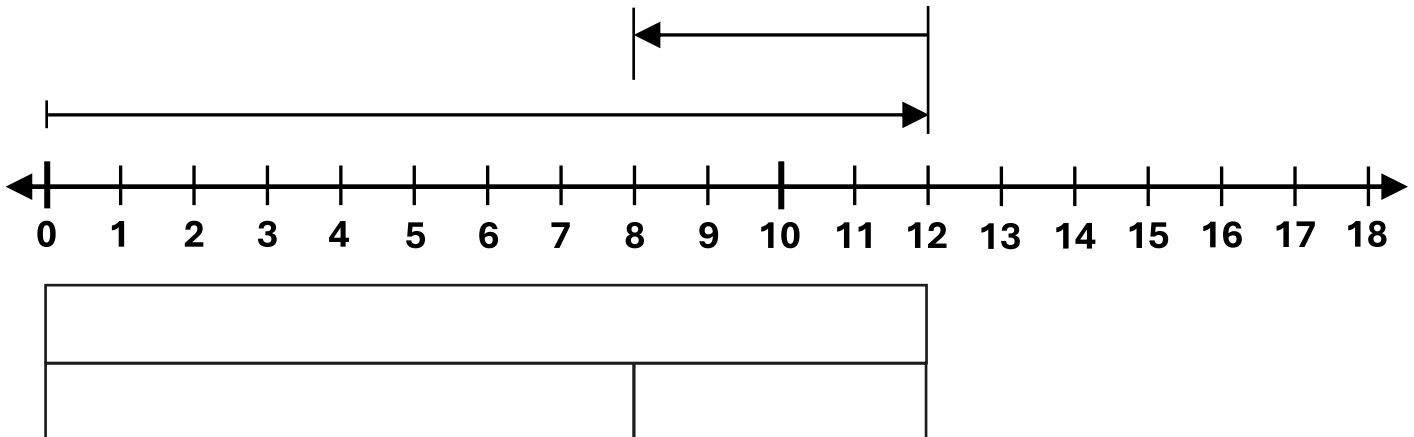
1.) $7 + ? = 16$



2.) $? - 5 = 6$



3.) $8 = ? - 4$

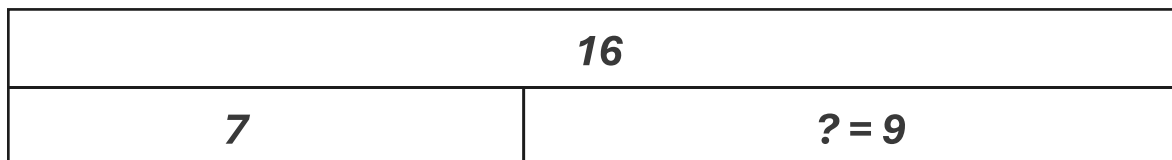
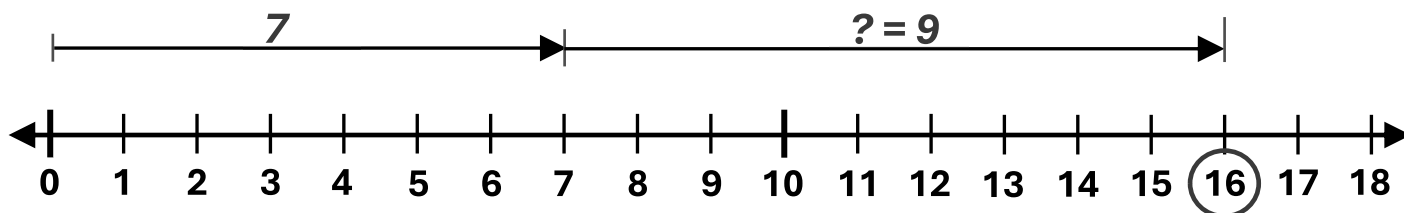


Addition and Subtraction – Conceptual Modeling – V4

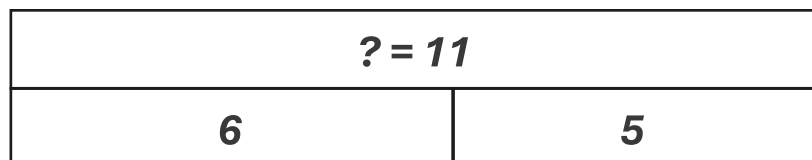
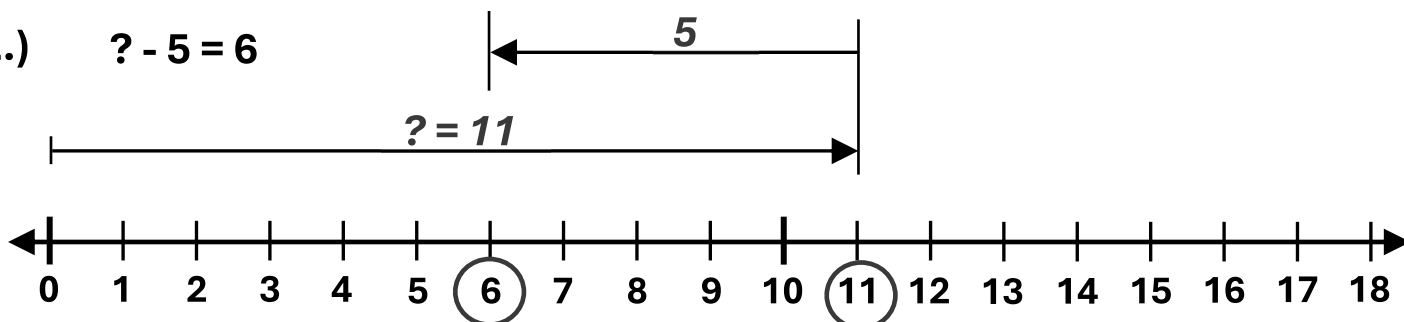
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ANSWER KEY

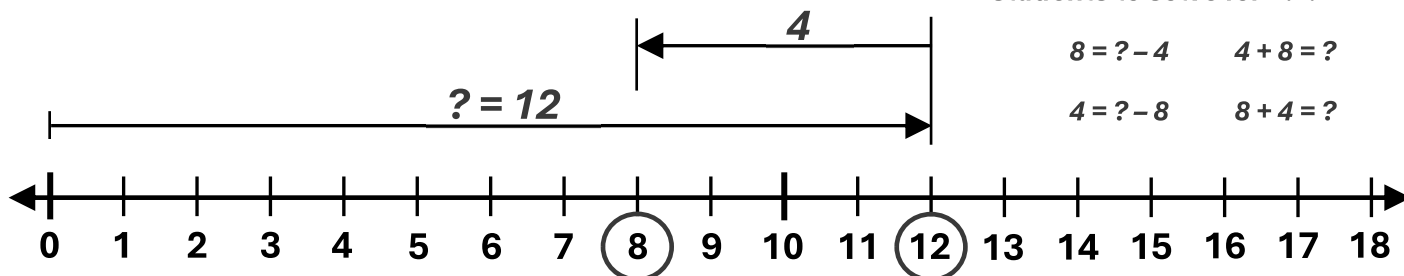


2.) $? - 5 = 6$

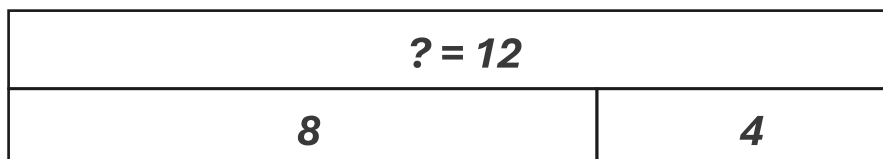


3.) $8 = ? - 4$

Note: Another way to solve this type of problem is to write the fact family – then it's easier for students to solve for “?”.



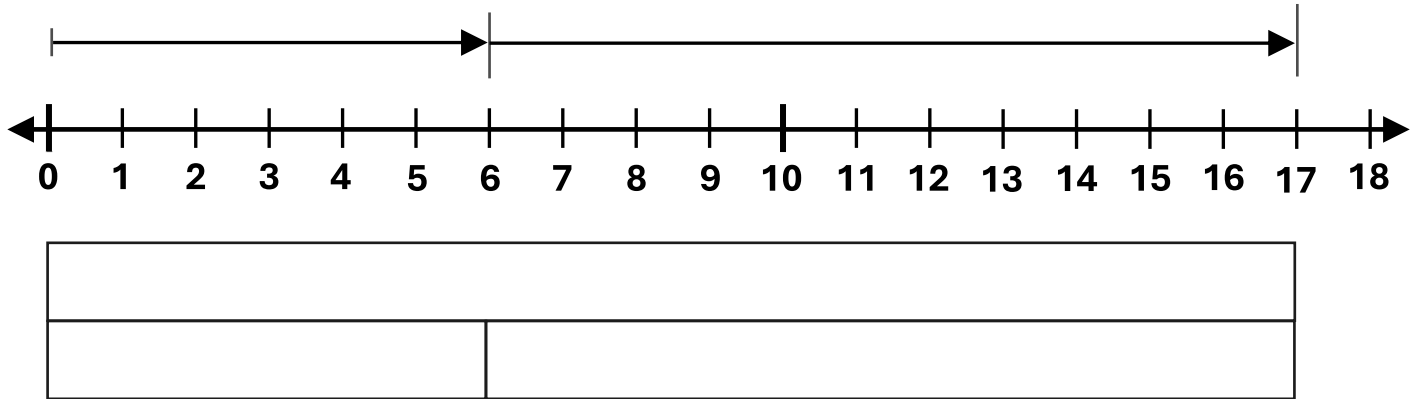
$$\begin{array}{ll} 8 = ? - 4 & 4 + 8 = ? \\ 4 = ? - 8 & 8 + 4 = ? \end{array}$$



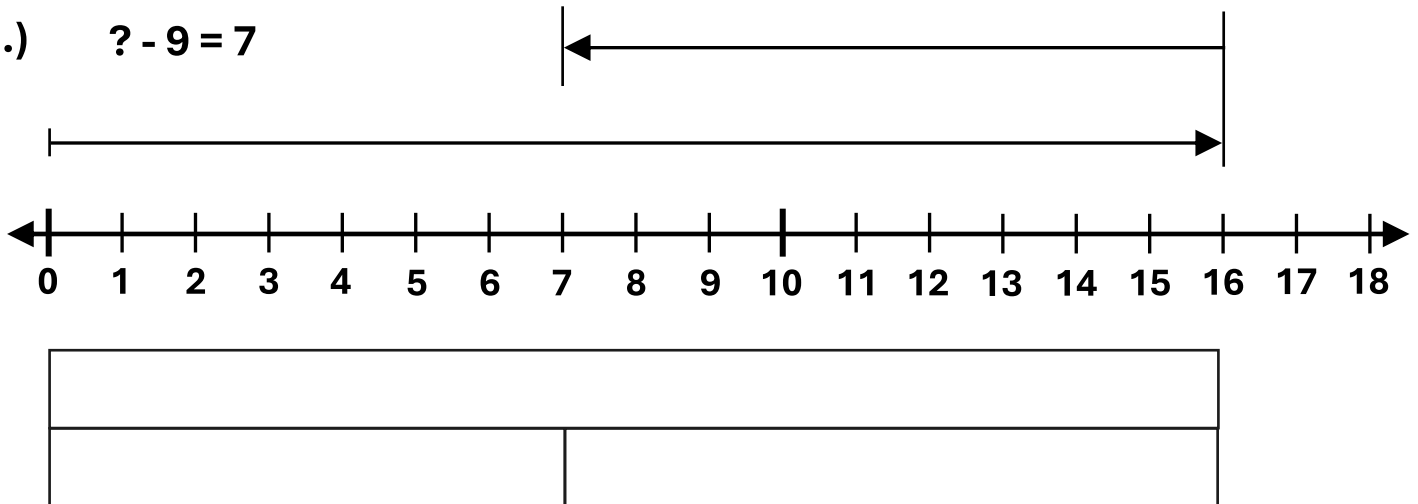
Addition and Subtraction – Conceptual Modeling – V5

Directions: Write the numbers on the whole number lines and in the rectangles to show the meaning of the addition or subtraction equation.

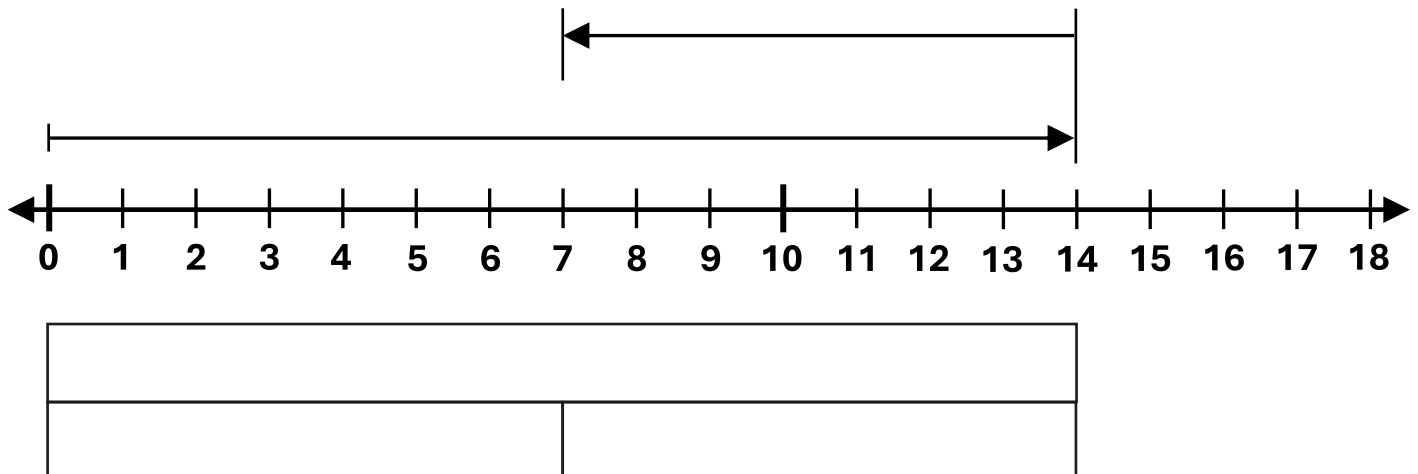
1.) $6 + 11 = ?$



2.) $? - 9 = 7$



3.) $14 - 7 = ?$

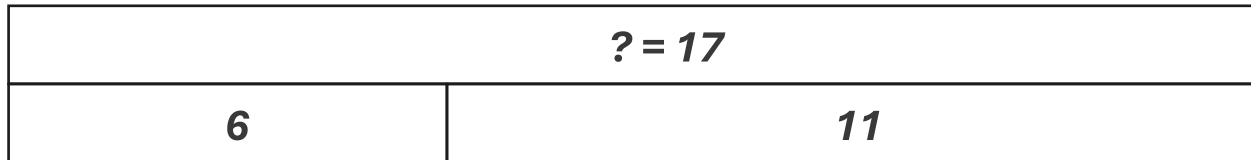
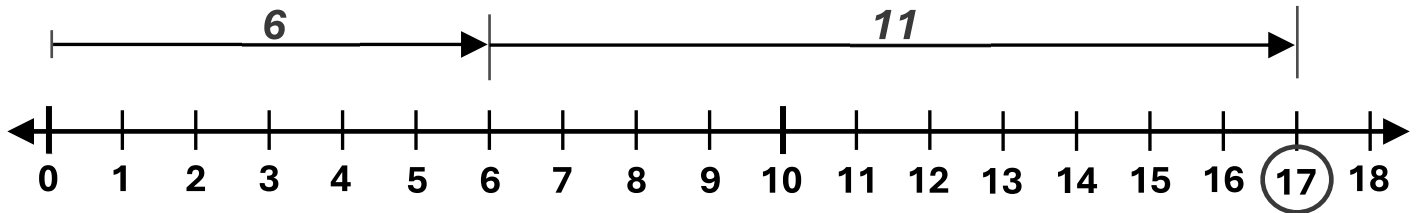


Addition and Subtraction – Conceptual Modeling – V5

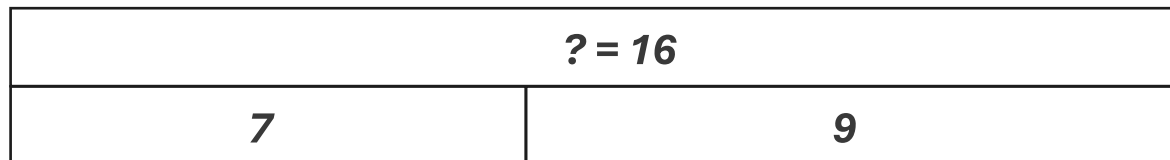
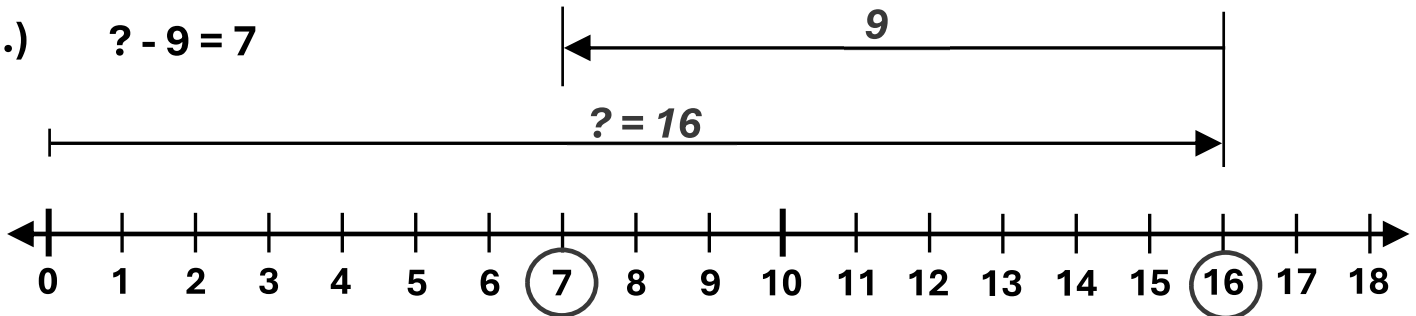
Directions: Write the numbers on the whole number lines and in the rectangles to show the meaning of the addition or subtraction equation.

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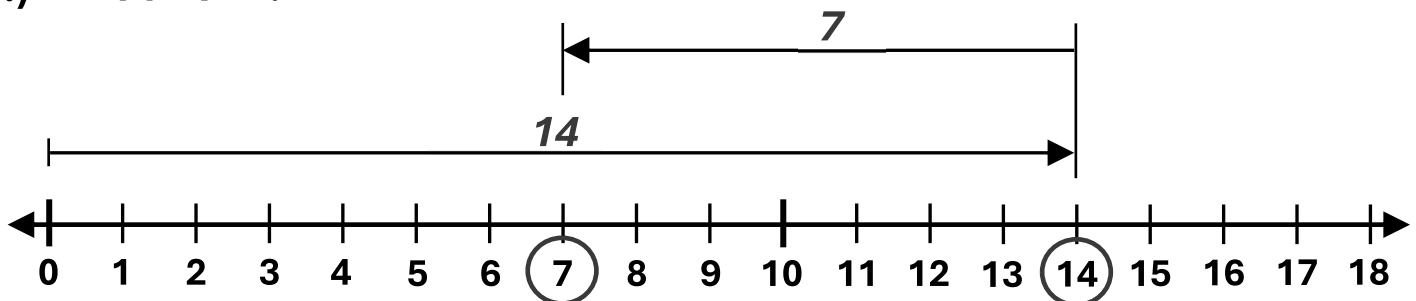
ANSWER KEY



2.) $? - 9 = 7$



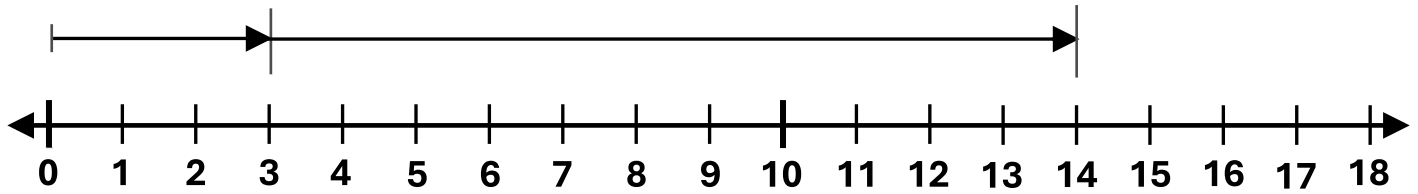
3.) $14 - 7 = ?$



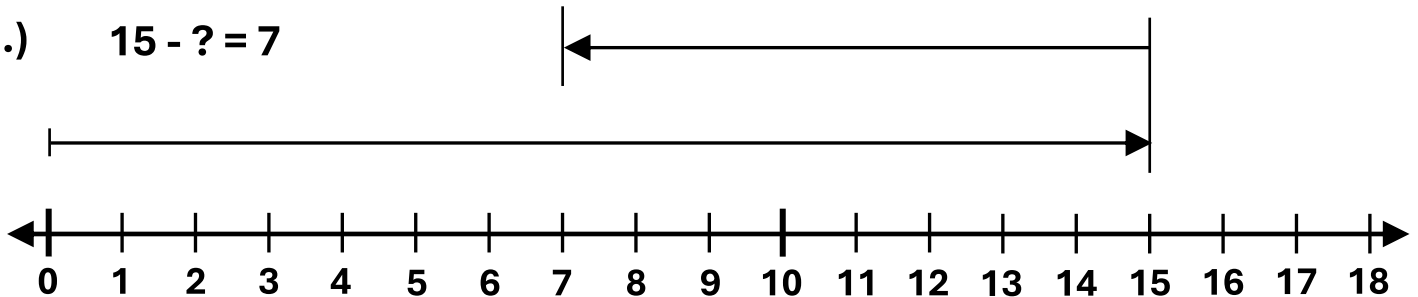
Addition and Subtraction – Conceptual Modeling – V6

Directions: Write the numbers on the whole number lines and in the rectangles to show the meaning of the addition or subtraction equation.

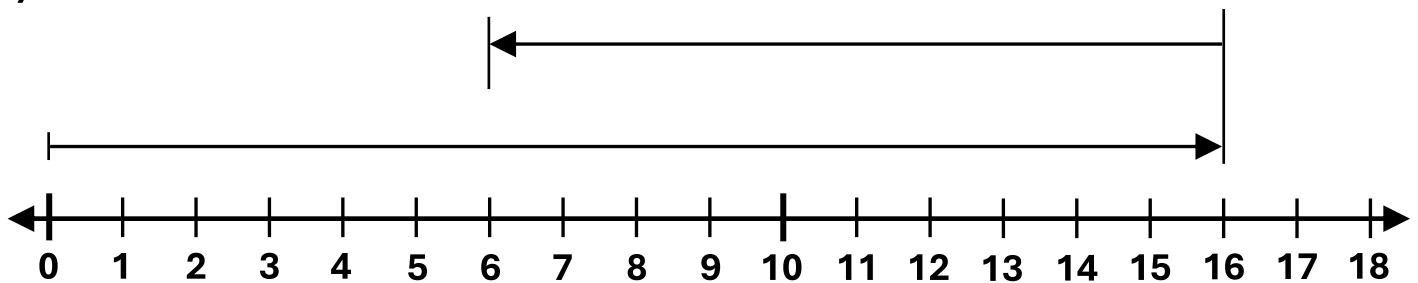
1.) $? + 11 = 14$



2.) $15 - ? = 7$



3.) $? - 10 = 6$

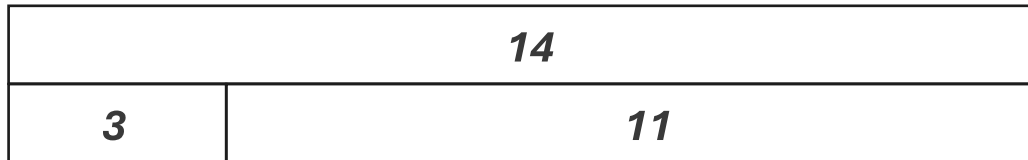
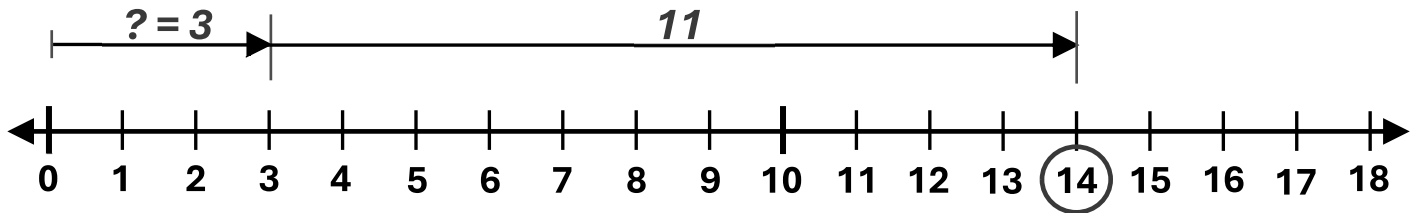


Addition and Subtraction – Conceptual Modeling – V6

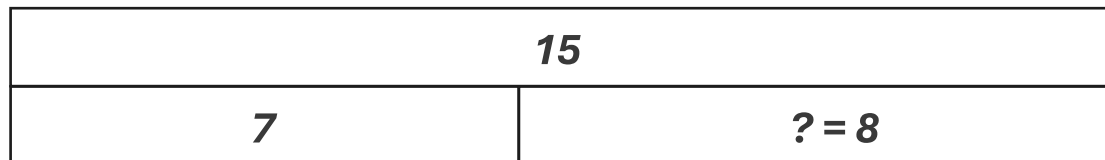
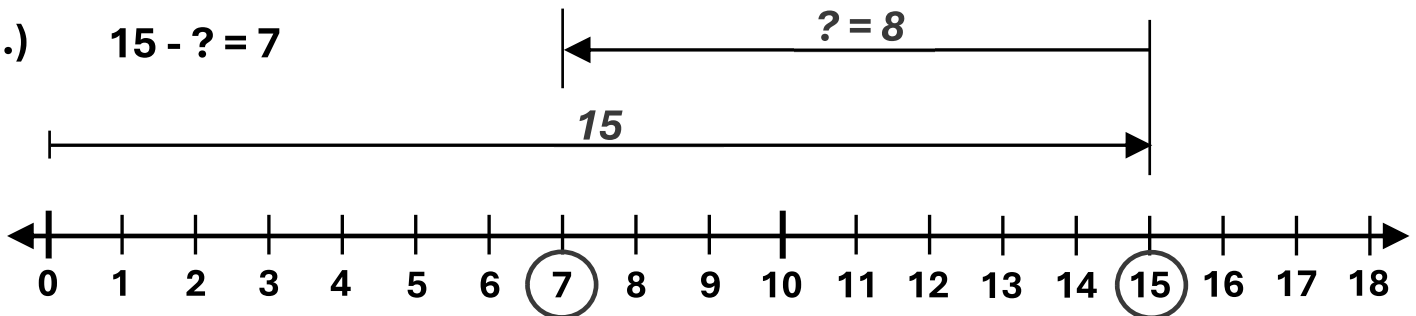
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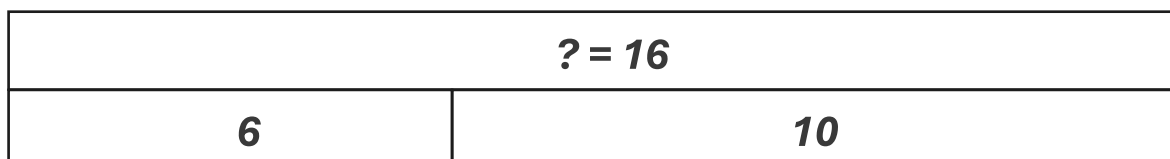
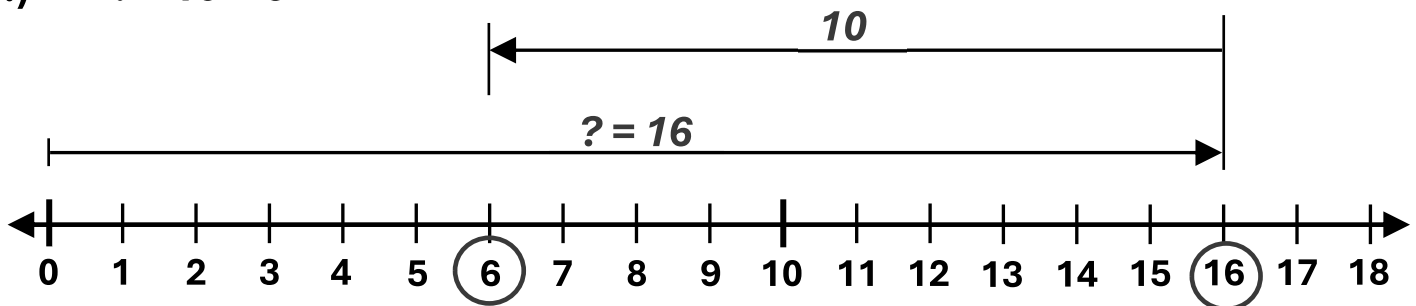
ANSWER KEY



2.) $15 - ? = 7$



3.) $? - 10 = 6$



Section 2

Labeling Whole Number Lines

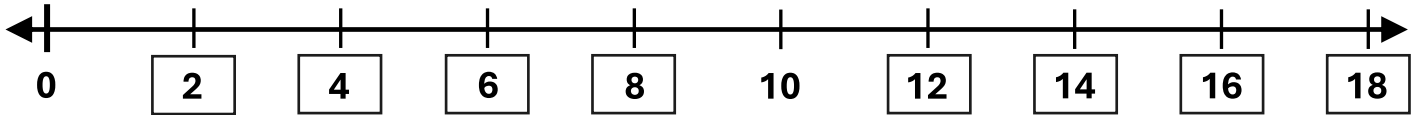
Varied Whole Number Lines

Student Practice Resource

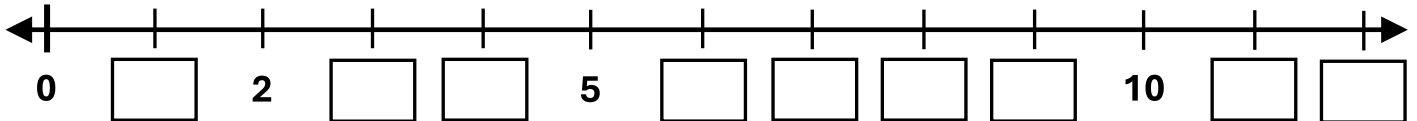
Labeling Whole Number Lines – V1

Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

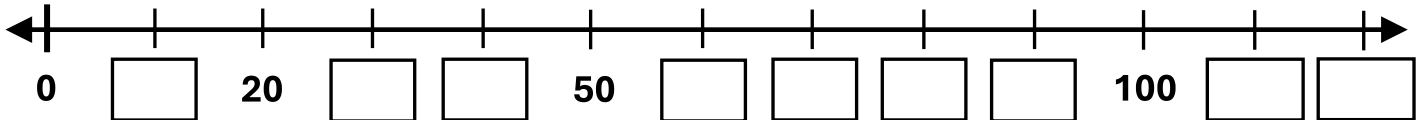
1.)



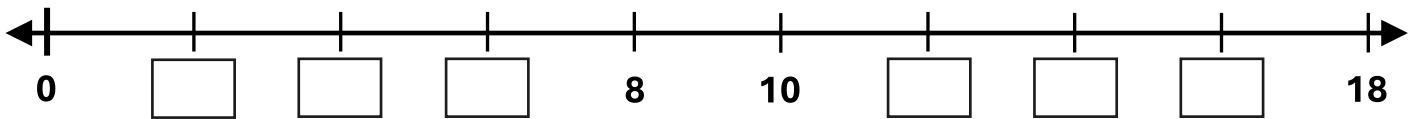
2.)



3.)

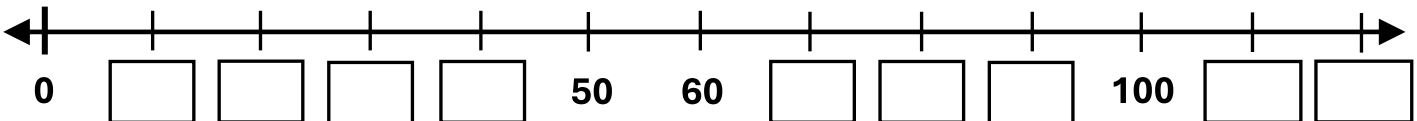


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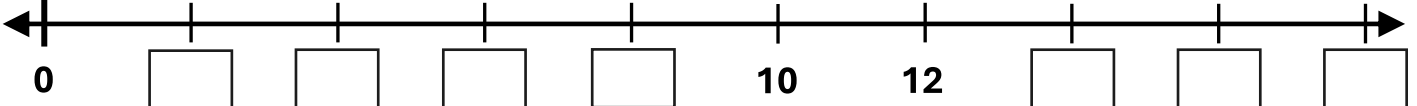


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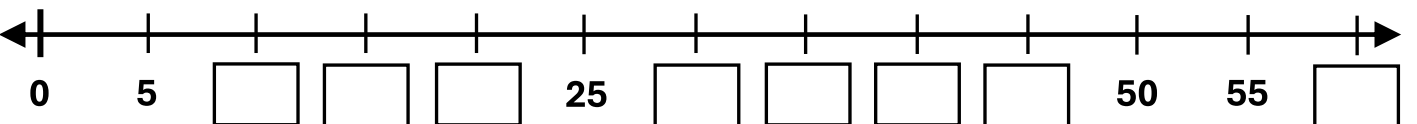
1.)



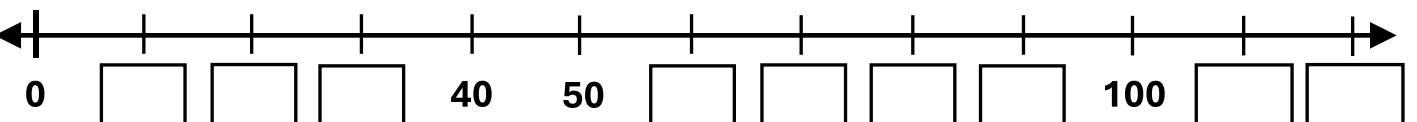
2.)



3.)



4.)



Labeling Whole Number Lines – V1

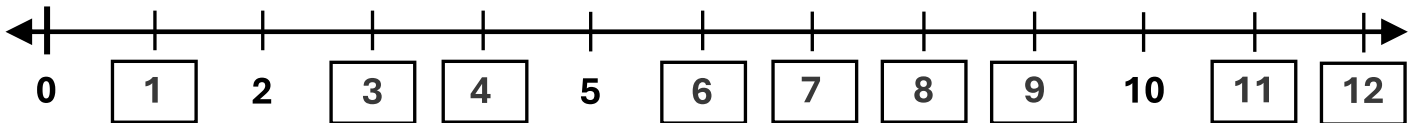
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1.)

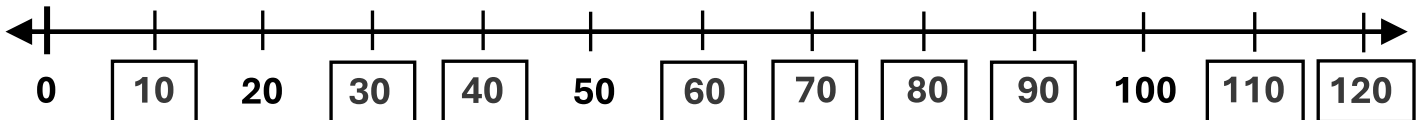
ANSWER KEY



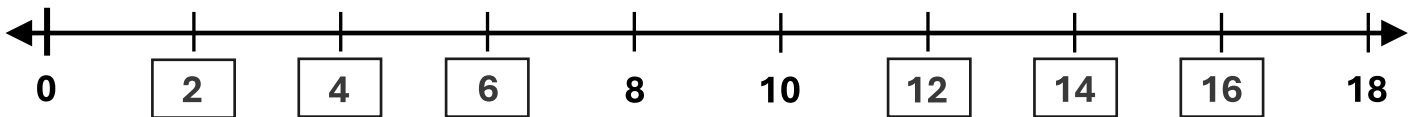
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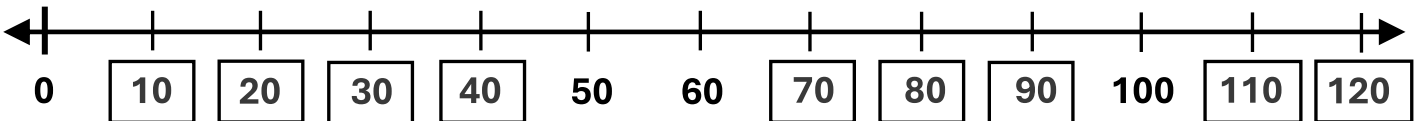


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Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

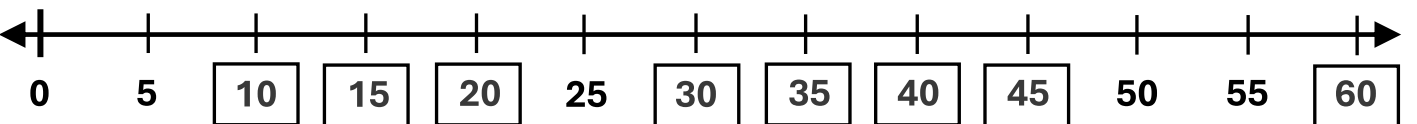
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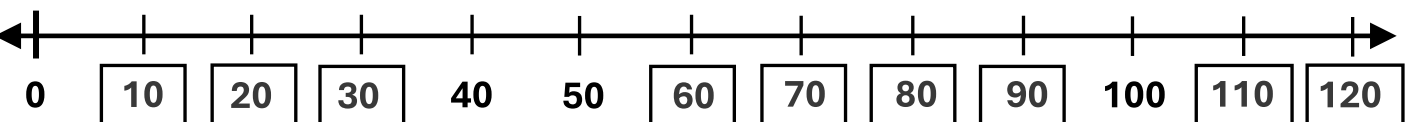
2.)



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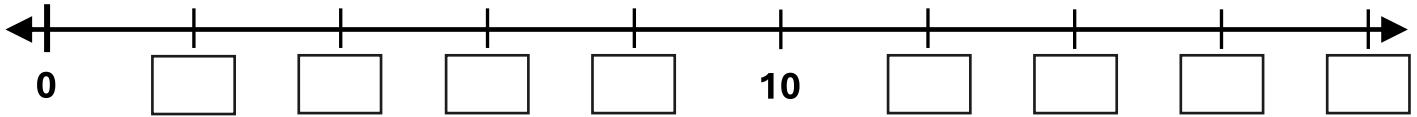
4.)



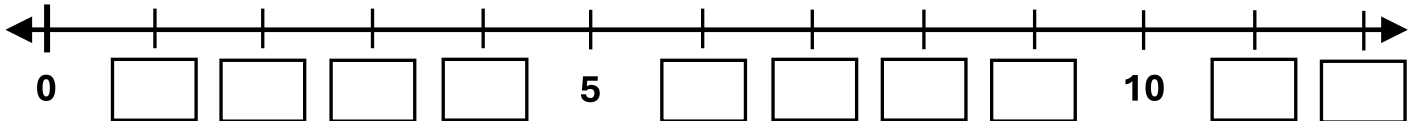
Labeling Whole Number Lines – V2

Directions: Write the the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

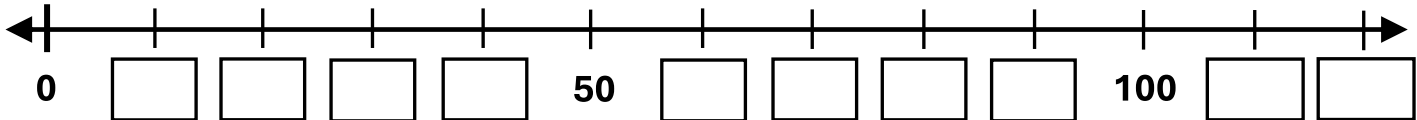
1.)



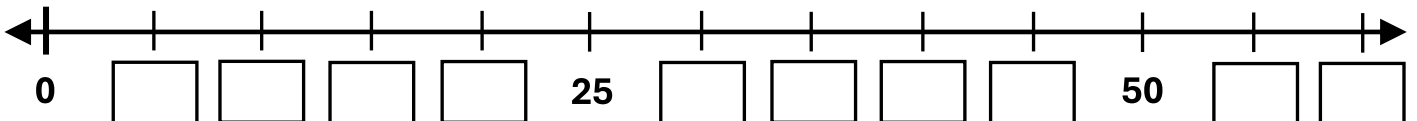
2.)



3.)

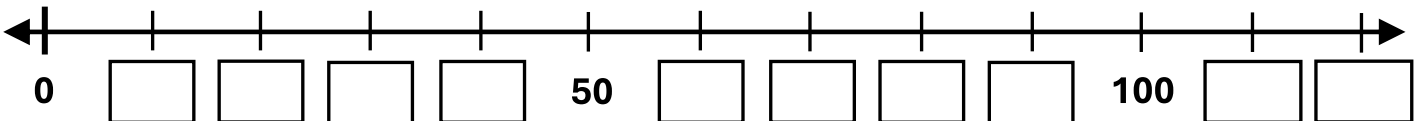


4.)

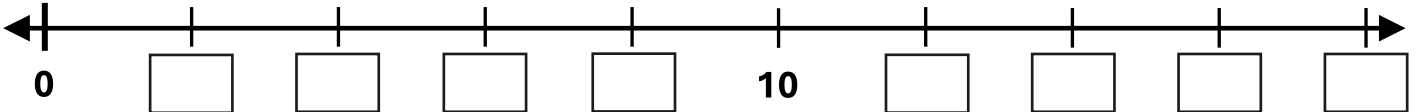


Directions: Write the all the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

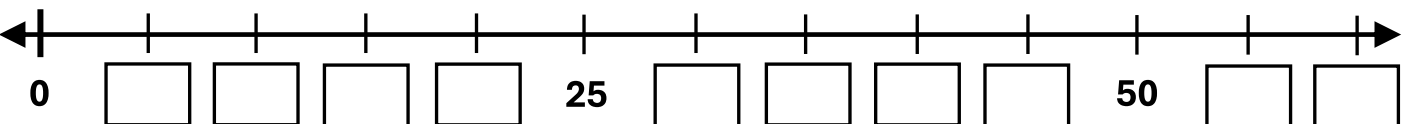
1.)



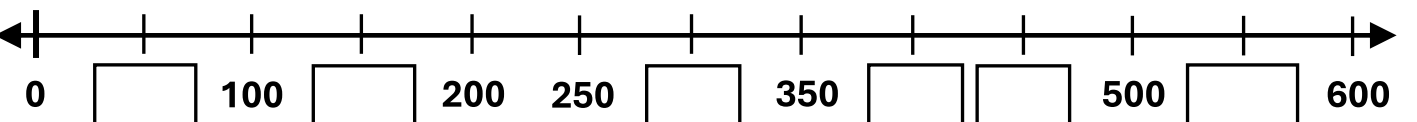
2.)



3.)



4.)



Labeling Whole Number Lines – V2

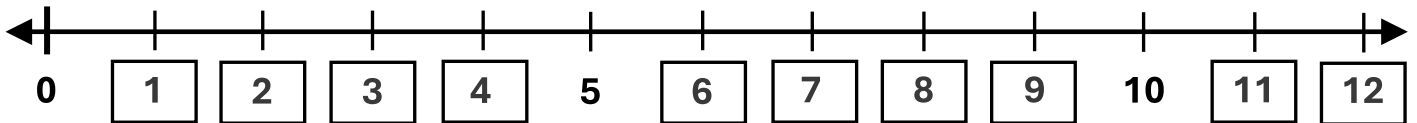
Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

1.)

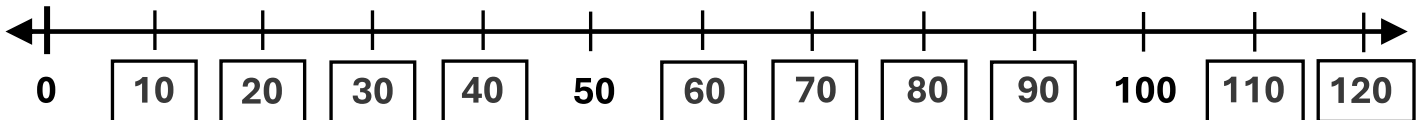
ANSWER KEY



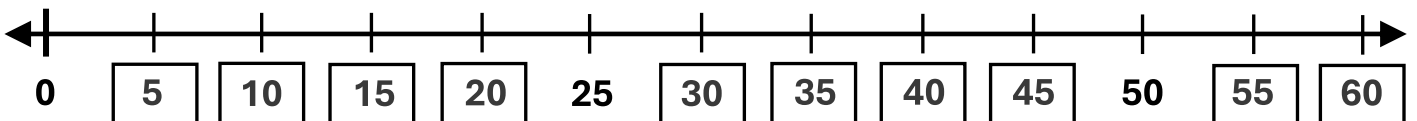
2.)



3.)

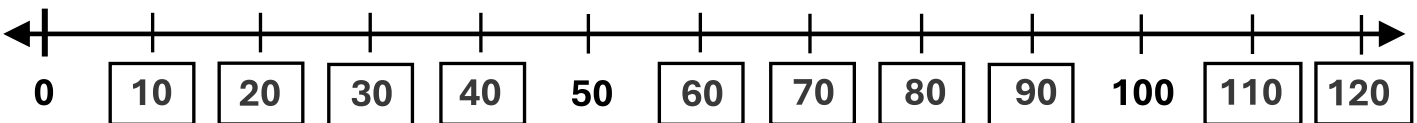


4.)

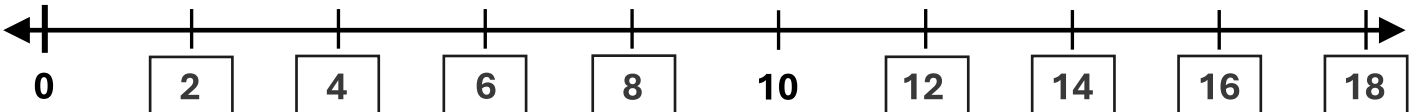


Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

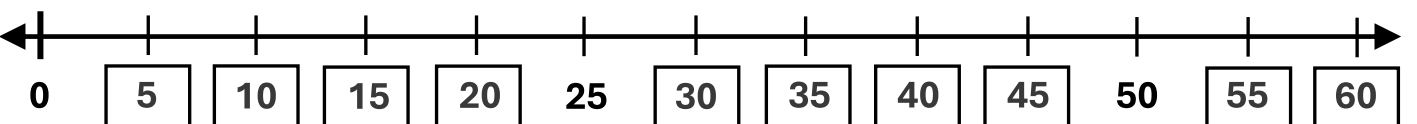
1.)



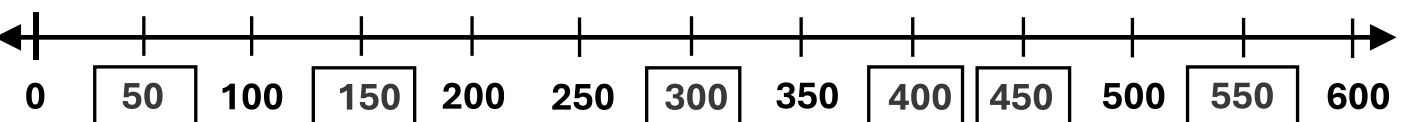
2.)



3.)



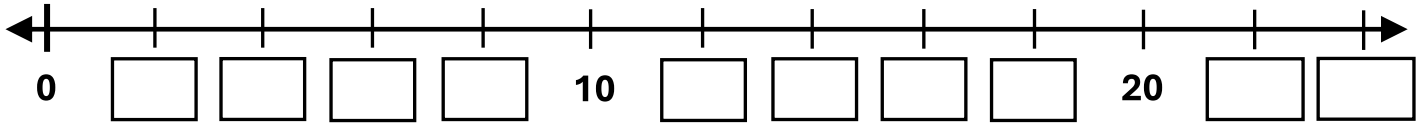
4.)



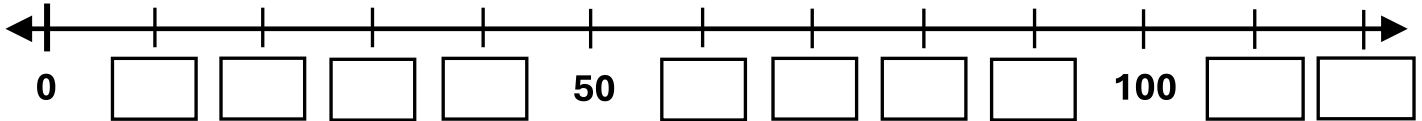
Labeling Whole Number Lines – V3

Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

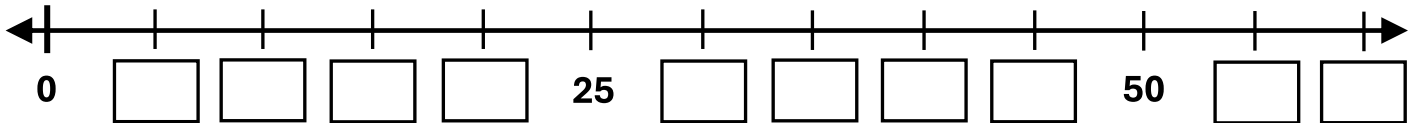
1.)



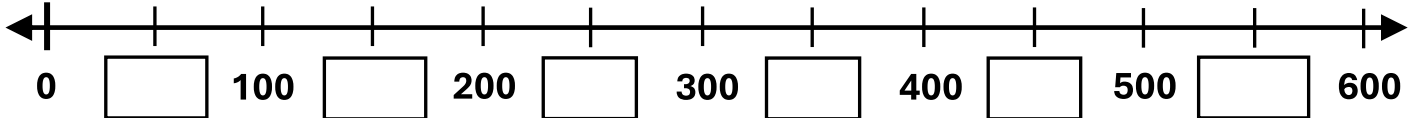
2.)



3.)

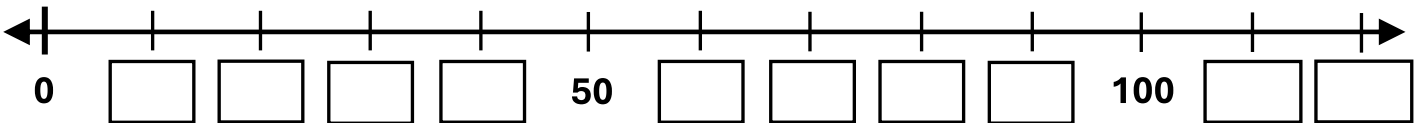


4.)

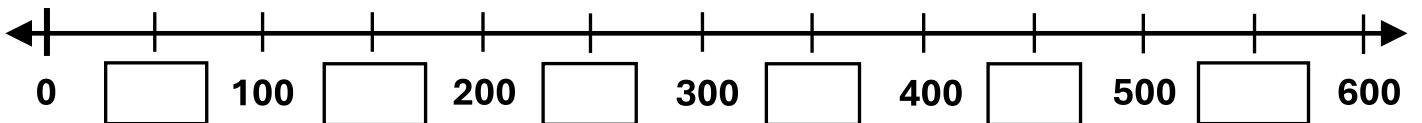


Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

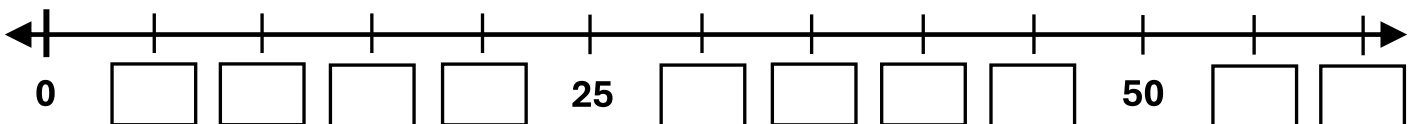
1.)



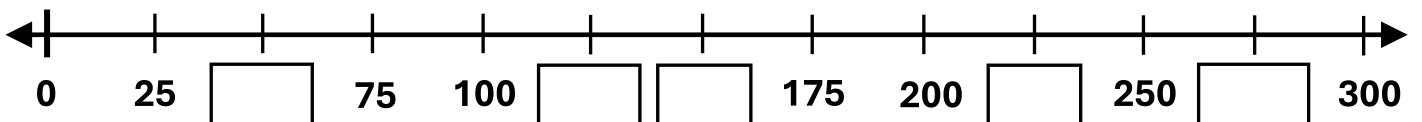
2.)



3.)



4.)

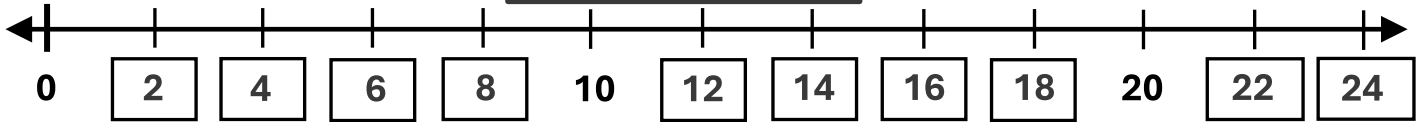


Labeling Whole Number Lines – V3

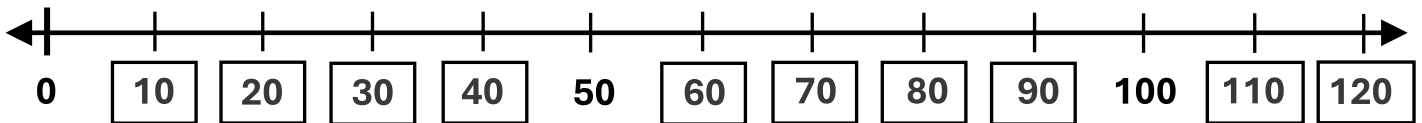
Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

1.)

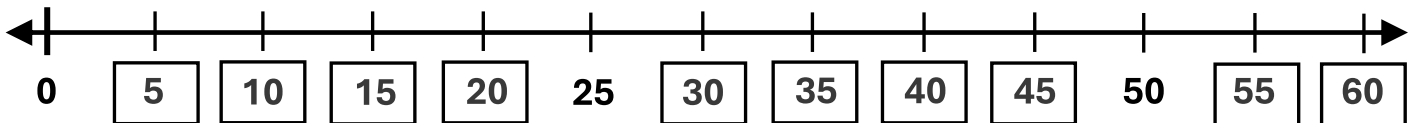
ANSWER KEY



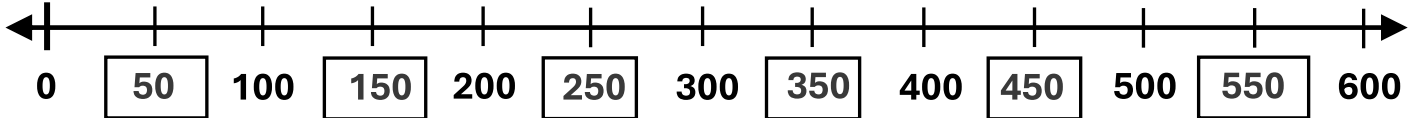
2.)



3.)

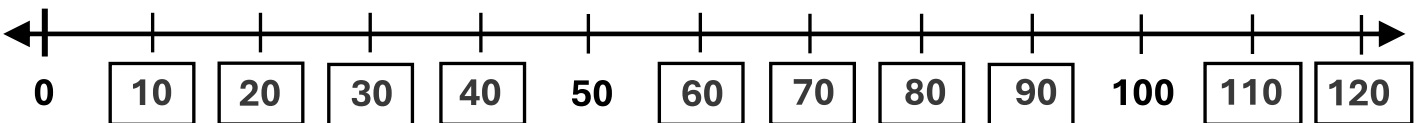


4.)

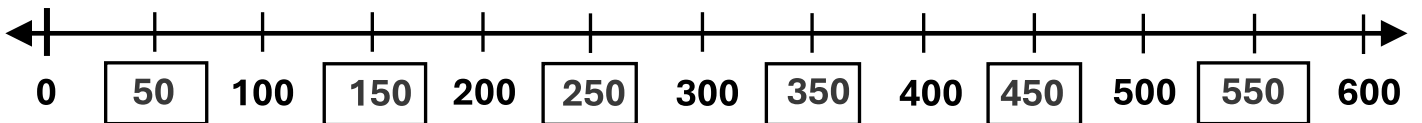


Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

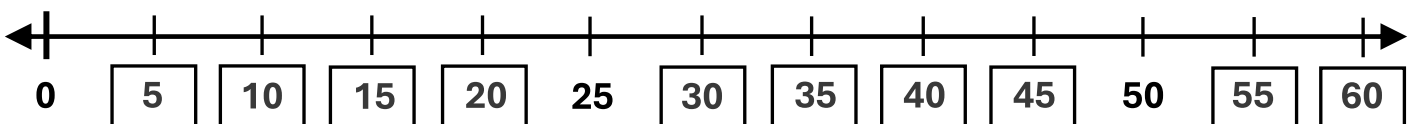
1.)



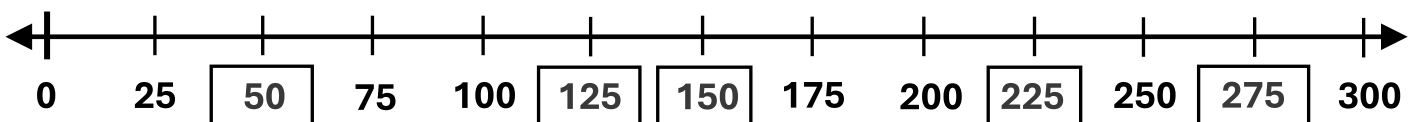
2.)



3.)



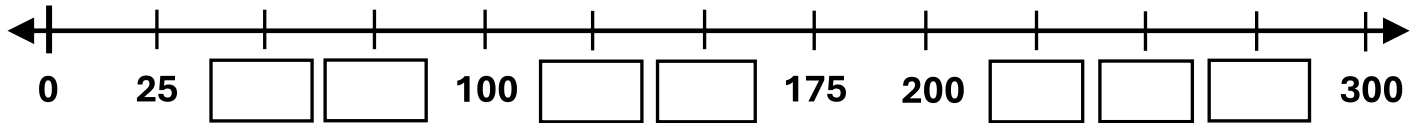
4.)



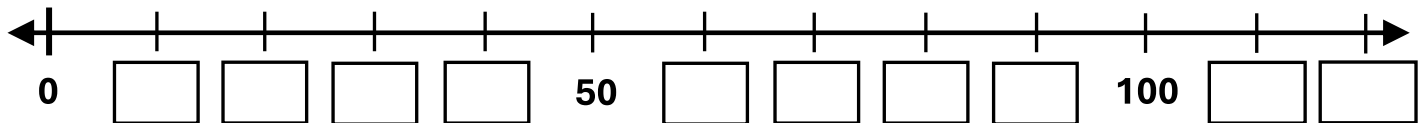
Labeling Whole Number Lines – V4

Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

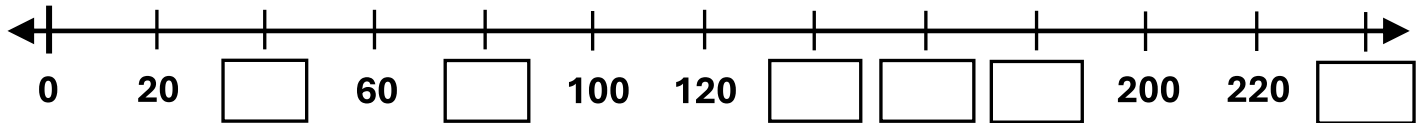
1.)



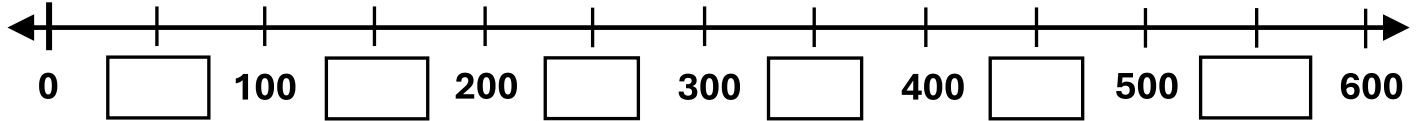
2.)



3.)

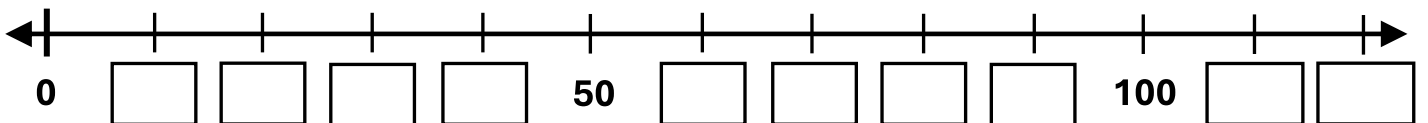


4.)

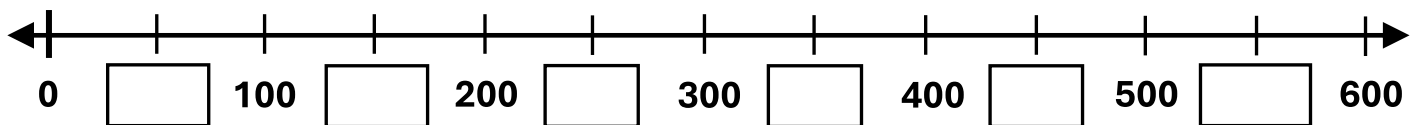


Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

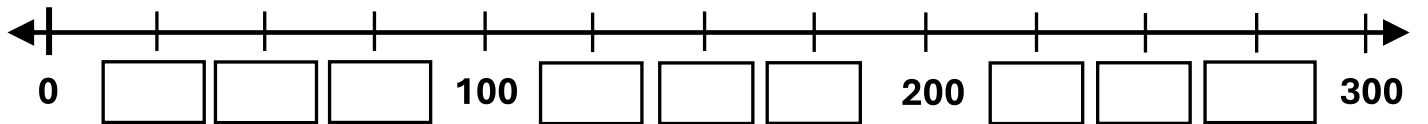
1.)



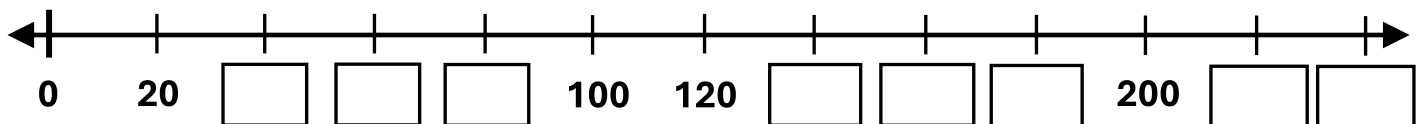
2.)



3.)



4.)

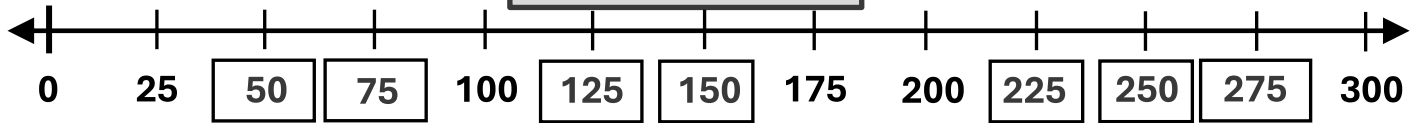


Labeling Whole Number Lines – V4

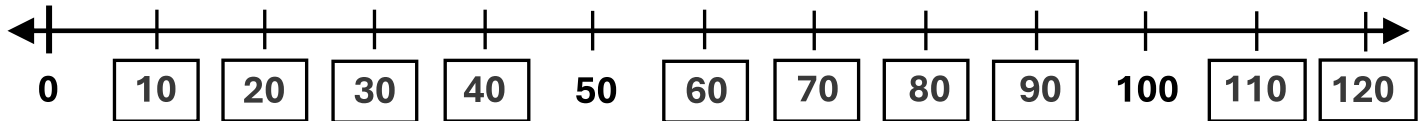
Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

1.)

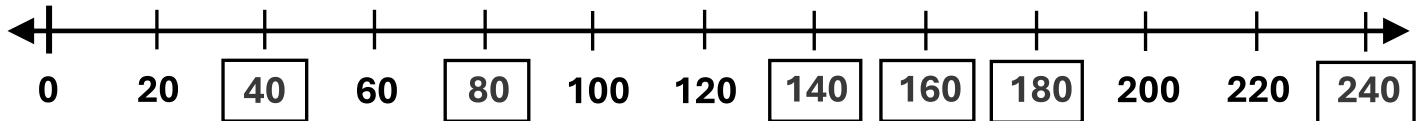
ANSWER KEY



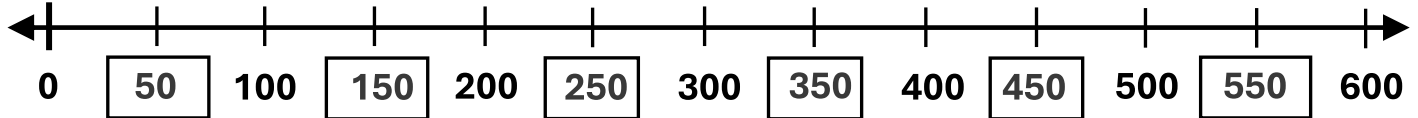
2.)



3.)

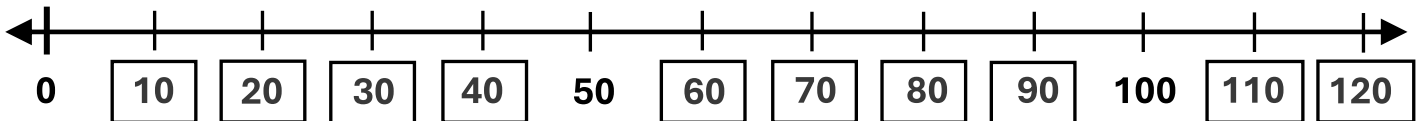


4.)

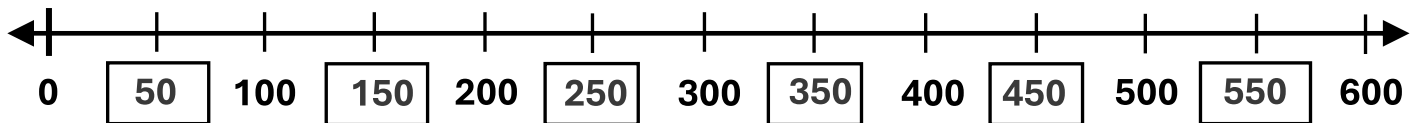


Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

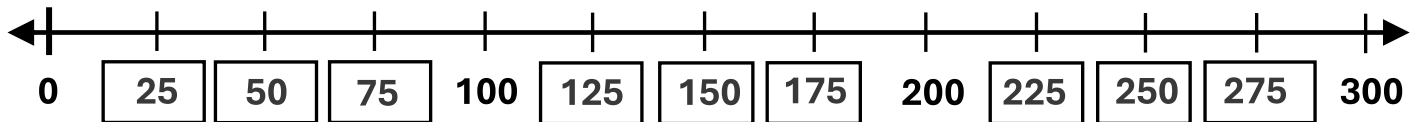
1.)



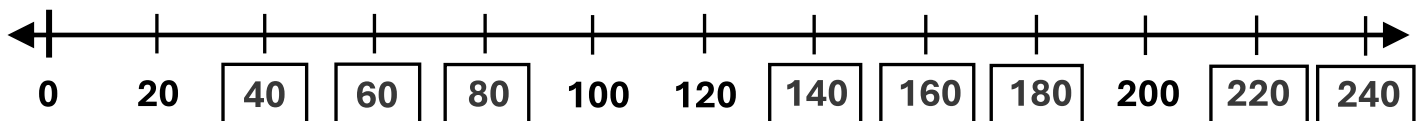
2.)



3.)



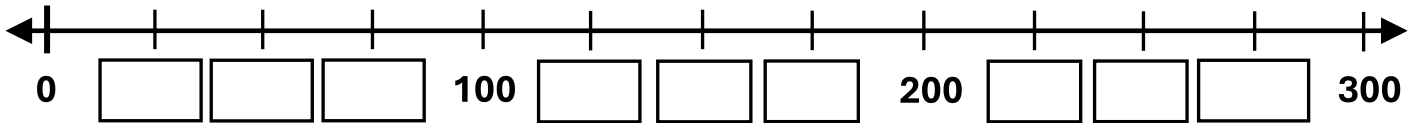
4.)



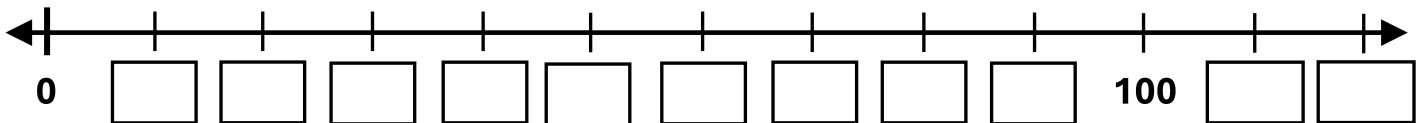
Labeling Whole Number Lines – V5

Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

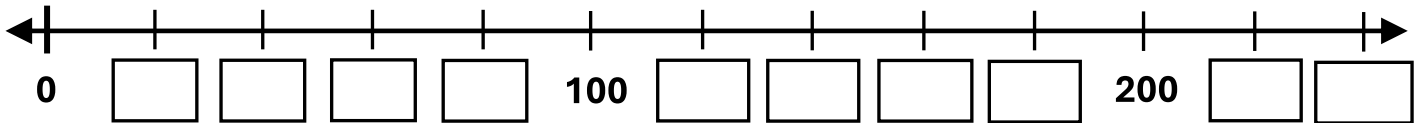
1.)



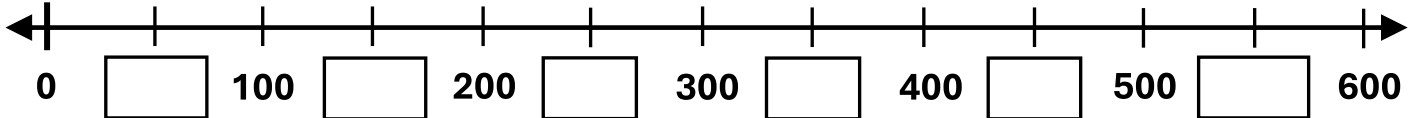
2.)



3.)

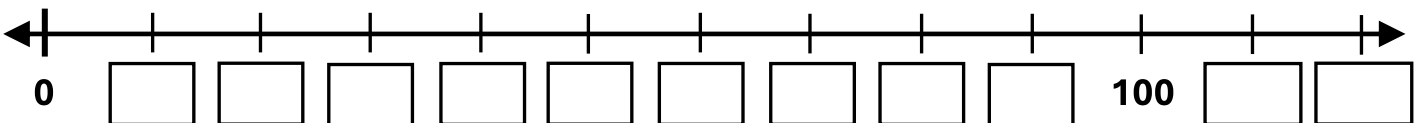


4.)

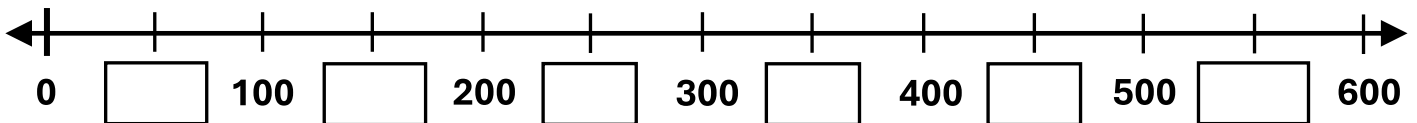


Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

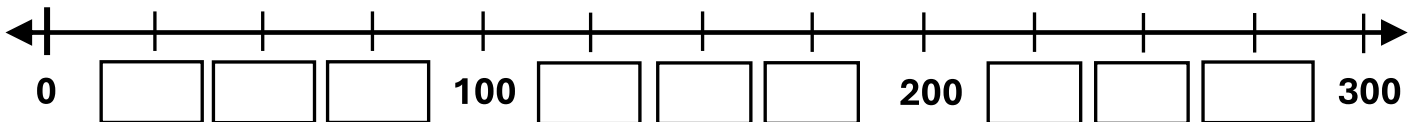
1.)



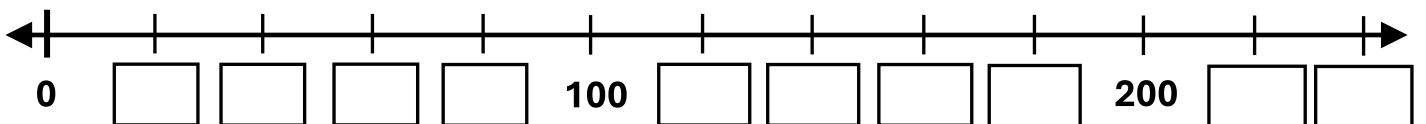
2.)



3.)



4.)

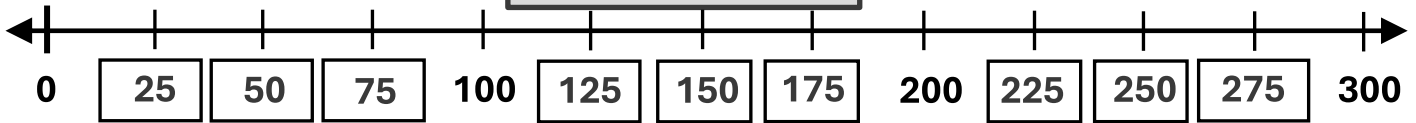


Labeling Whole Number Lines – V5

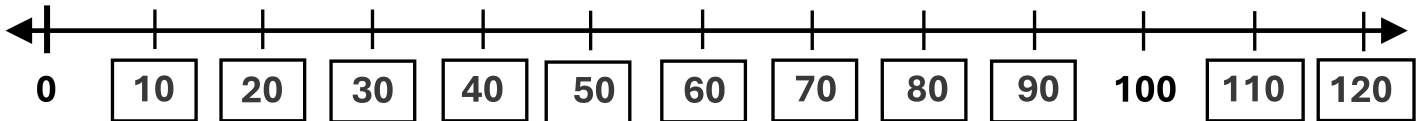
Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

1.)

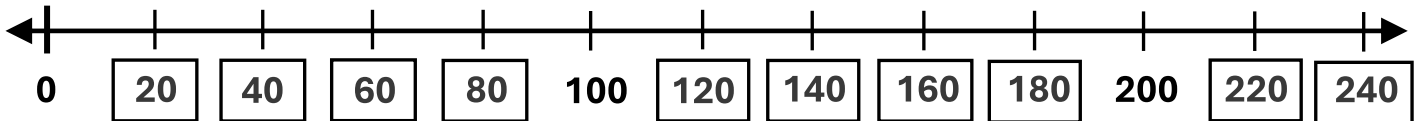
ANSWER KEY



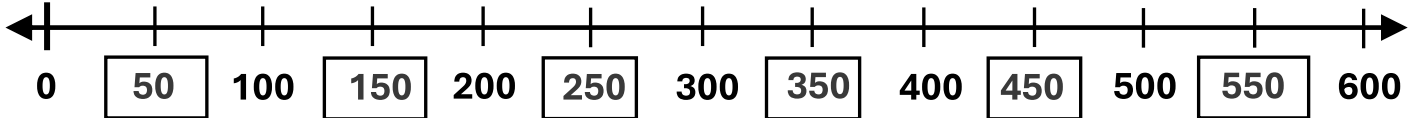
2.)



3.)

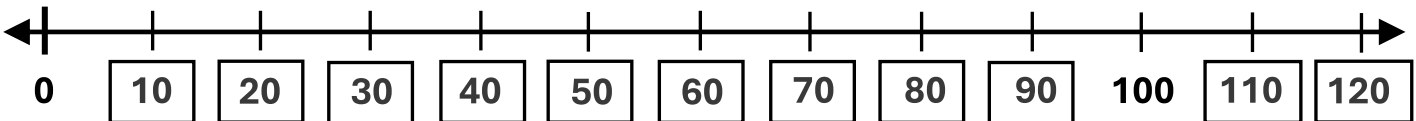


4.)

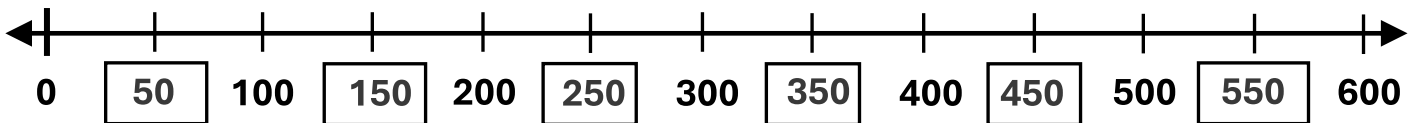


Directions: Write the numbers at each point on the whole number lines in the box provided. You will need to determine if the number lines are spaced in 1's, 2's, 5's, 10's, 20's, 25's or 50's.

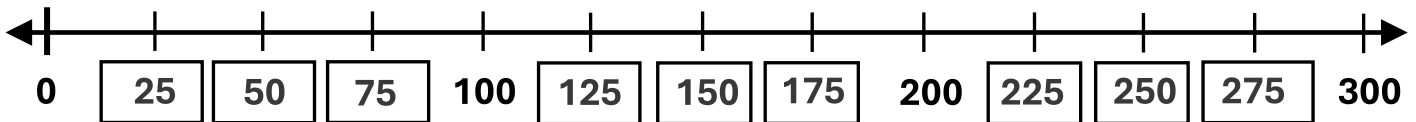
1.)



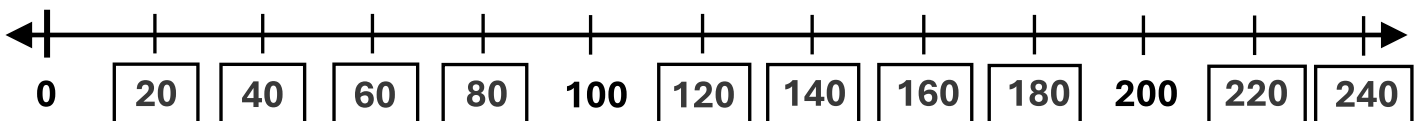
2.)



3.)



4.)



Labeling Whole Number Lines – V6

Directions: Write the multiples vertically based on the number provided in the top rectangle of the box.

1	2	5	10	20	25	50	100
0	0	0					
1	2						
2							



Directions: Write the multiples vertically based on the number provided in the top rectangle of the box.

1	2	5	10	20	25	50	100
0	0	0					
1	2						
2							

Directions: **Write** the multiples vertically based on the number provided in the top rectangle of the box.

1	2	5	10	20	25	50	100
0	0	0	0	0	0	0	0
1	2	5	10	20	25	50	100
2	4	10	20	40	50	100	200
3	6	15	30	60	75	150	300
4	8	20	40	80	100	200	400
5	10	25	50	100	125	250	500
6	12	30	60	120	150	300	600
7	14	35	70	140	175	350	700
8	16	40	80	160	200	400	800
9	18	45	90	180	225	450	900
10	20	50	100	200	250	500	1000

Directions: **Write** the multiples vertically based on the number provided in the top rectangle of the box.

1	2	5	10	20	25	50	100
0	0	0	0	0	0	0	0
1	2	5	10	20	25	50	100
2	4	10	20	40	50	100	200
3	6	15	30	60	75	150	300
4	8	20	40	80	100	200	400
5	10	25	50	100	125	250	500
6	12	30	60	120	150	300	600
7	14	35	70	140	175	350	700
8	16	40	80	160	200	400	800
9	18	45	90	180	225	450	900
10	20	50	100	200	250	500	1000

Section 3

Solving Problems Demonstrating Conceptual Understanding

Two Digit Numbers

Student Practice Resource

Two (2) Digit Addition and Subtraction Practice – V1

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or number of the addition equation shown in the box below. Choose three (3) correct answers.

$$23 + 47 = ?$$

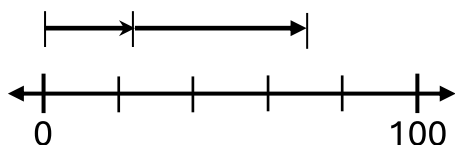
A.

47	
23	?

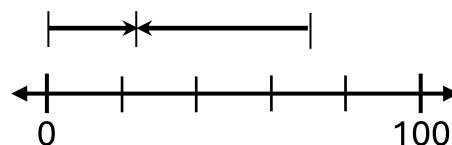
B.

?	
23	47

C.



D.



E.

60

F.

70

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose three (3) correct answers.

$$87 - 39 = ?$$

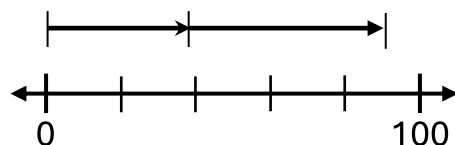
A.

87	
39	?

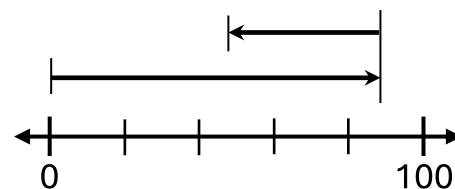
B.

?	
39	87

C.



D.



E.

48

F.

58

Two (2) Digit Addition and Subtraction Practice – V1

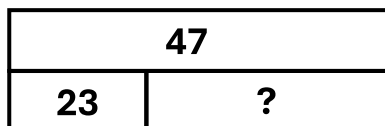
Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

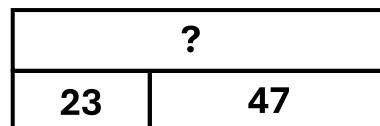
- 1.) Identify the correct model or number of the addition equation shown in the box below. Choose three (3) correct answers.

$$23 + 47 = ?$$

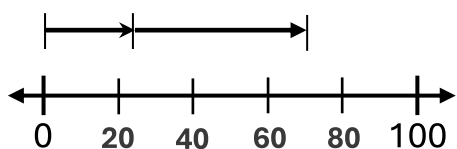
A.



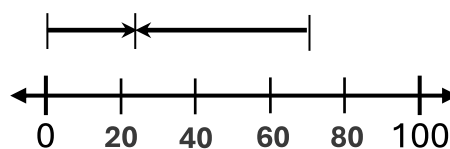
B.



C.



D.



Note: Students should label the whole number line.

E.

60



F.

70

Use a **fact family** as needed:

$$\begin{array}{ll} 70 - 23 = 47 & 23 + 47 = 70 \\ 70 - 47 = 23 & 47 + 23 = 70 \end{array}$$

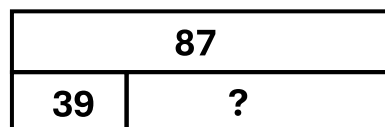
Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose three (3) correct answers.

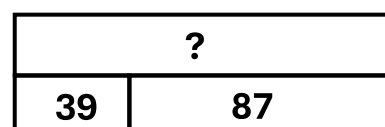
$$87 - 39 = ?$$



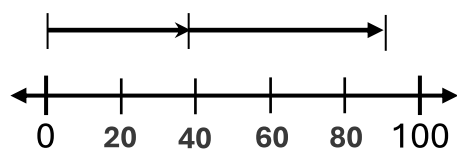
A.



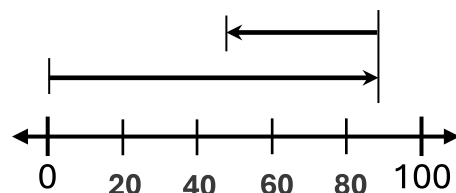
B.



C.



D.



E.

48

F.

58

Use a **fact family** as needed:

$$\begin{array}{ll} 87 - 39 = 48 & 39 + 48 = 87 \\ 87 - 48 = 39 & 48 + 39 = 87 \end{array}$$

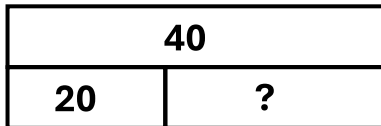
Two (2) Digit Addition and Subtraction Practice – V2

Directions: Solve the problem below. Provide answer(s) as indicated.

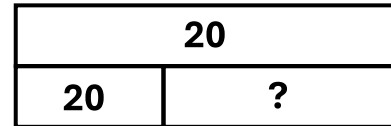
- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose two (2) correct answers.

$$? - 20 = 40$$

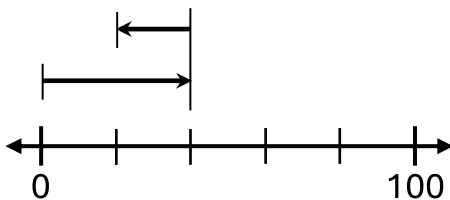
A.



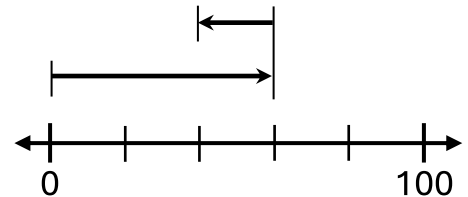
B.



C.



D.



E.

60

F.

20

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Solve the subtraction equation.

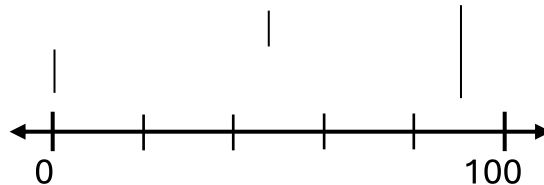
Draw the arrows on the whole number line that correctly represents the equation.

Write the whole numbers in each rectangle that represents the subtraction equation.

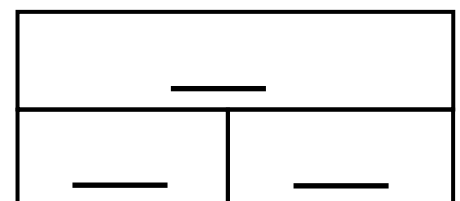
$$92 - 47 = ?$$

- a.) Solve the subtraction equation and write the difference on the line: _____

- b.) Draw the arrows on the number line that represents the subtraction equation.



- c.) Write the whole number in each rectangle on the line provided that correctly represents the subtraction equation.



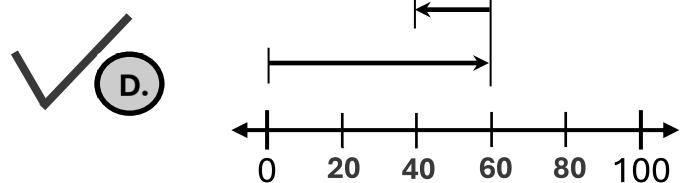
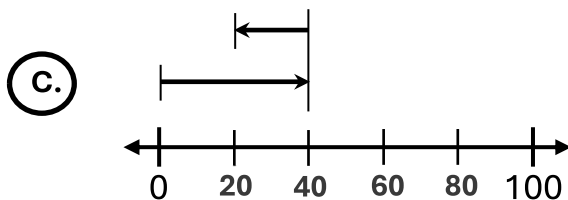
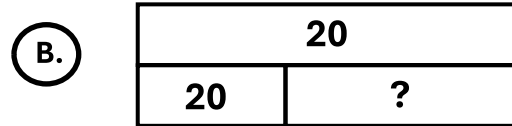
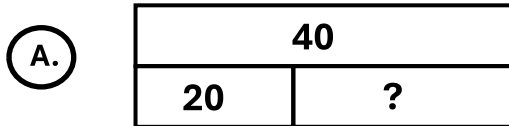
Two (2) Digit Addition and Subtraction Practice – V2

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose two (2) correct answers.

$$? - 20 = 40$$



Students should label the number line to better understand the process.



Use a **fact family** as needed:
 $60 - 40 = 20$ $40 + 20 = 60$
 $60 - 20 = 40$ $20 + 40 = 60$

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) **Solve** the subtraction equation.

Draw the arrows on the whole number line that correctly represents the equation.

Write the whole numbers in each rectangle that represents the subtraction equation.

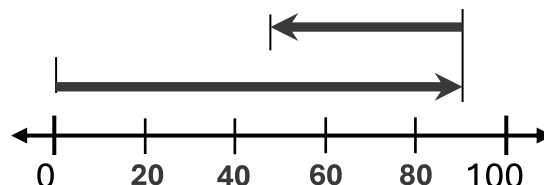
Use a **fact family** as needed:

$$\begin{array}{ll} 92 - 45 = 47 & 45 + 47 = 92 \\ 92 - 47 = 45 & 47 + 45 = 92 \end{array}$$

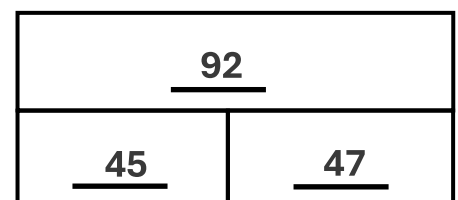
$$92 - 47 = ?$$

- a.) Solve the subtraction equation and write the **difference** on the line: 45

- b.) Draw the arrows on the number line that represents the subtraction equation.



- c.) Write the whole number in each rectangle on the line provided that correctly represents the subtraction equation.



Two (2) Digit Addition and Subtraction Practice – V3

Directions: **Solve** the problem below. Provide answer(s) as indicated.

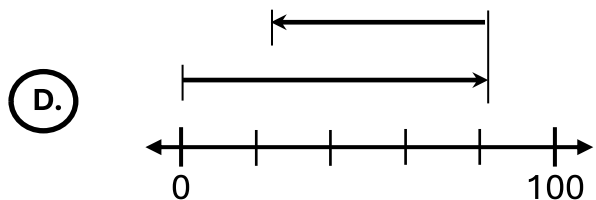
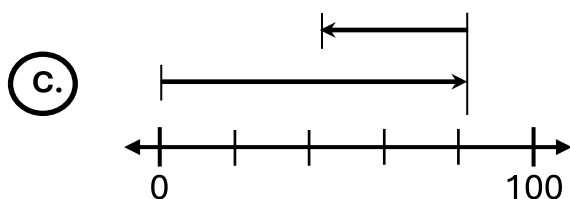
- 1.) Jennifer has 82 dolls. On her 15th birthday, she gave 39 dolls to her friends. How many dolls does Jennifer have now? Choose two (2) correct answers that show the number of dolls that Jennifer owns.

A.

39	
?	82

B.

?	
39	82



E. $82 - 39 = 43$

F. $82 - 39 = 53$

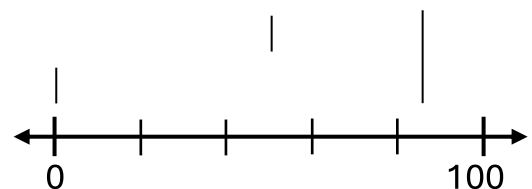
Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) **Solve** the subtraction equation. **Write** the **fact family**.
Draw the arrows on the whole number line that correctly represents the equation.
Write the whole numbers in each rectangle that represents the subtraction equation.

$85 - 34 = ?$

- a.) Solve the subtraction equation and write the **difference** on the line: _____

Write the <u>fact family</u>:	
_____	_____
_____	_____



- b.) Draw the arrows on the number line that represents the subtraction equation.

- c.) Write the whole number in each rectangle on the line provided that correctly represents the subtraction equation.

_____	_____

Two (2) Digit Addition and Subtraction Practice – V3

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Jennifer has 82 dolls. On her 15th birthday, she gave 39 dolls to her friends. How many dolls does Jennifer have now? Choose two (2) correct answers that show the number of dolls that Jennifer owns.

Use a **fact family** as needed:

$$82 - 39 = 43 \quad 82 - 43 = 39 \quad 39 + 43 = 82 \quad 43 + 39 = 82$$

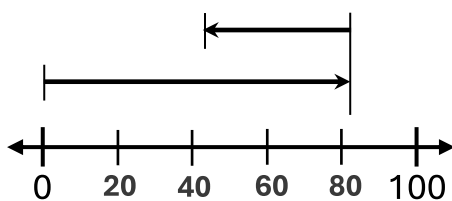
A.

39	
?	82

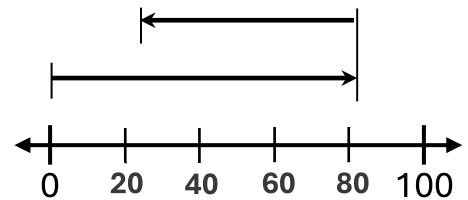
B.

?	
39	82

✓ C.



D.



✓ E.

$$82 - 39 = 43$$

F.

$$82 - 39 = 53$$

Directions: **Solve** the problem below. Provide answer(s) as indicated.

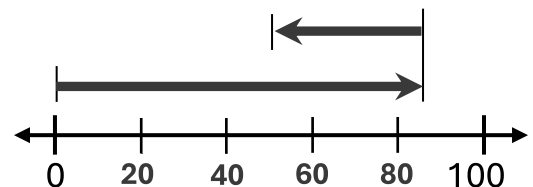
- 1.) **Solve** the subtraction equation. **Write** the **fact family**.
Draw the arrows on the whole number line that correctly represents the equation.
Write the whole numbers in each rectangle that represents the subtraction equation.

$$85 - 34 = ?$$

- a.) Solve the subtraction equation and write the **difference** on the line: 51

Write the **fact family**:

$85 - 51 = 34$	$34 + 51 = 85$
$85 - 34 = 51$	$51 + 34 = 85$



- b.) Draw the arrows on the number line that represents the subtraction equation.

- c.) Write the whole number in each rectangle on the line provided that correctly represents the subtraction equation.

85	
34	? = 51

Two (2) Digit Addition and Subtraction Practice – V4

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Sara and Perla enjoy playing marbles. Sara has 30 marbles. Perla has 15 more marbles than Sara.

Which diagram below correctly shows the total number of marbles that Sara and Perla own together?

A.

?	
15	30

B.

?	
30	30

C.

?	
15	$30 - 15$

D.

?		
30	30	15

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose two (2) correct answers.

$? - 52 = 10$

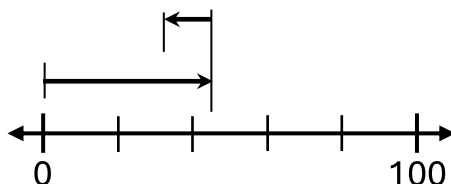
A.

52	
10	?

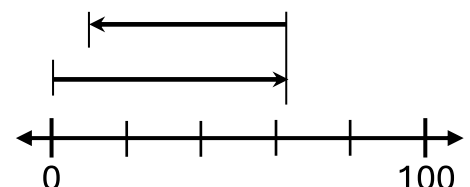
B.

?	
10	62

C.



D.



E.

$? = 42$

F.

$? = 62$

Two (2) Digit Addition and Subtraction Practice – V4

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Sara and Perla enjoy playing marbles. Sara has 30 marbles. Perla has 15 more marbles than Sara.

Which diagram below correctly shows the total number of marbles that Sara and Perla own together?

A.

? = 45	
15	30

B.

? = 60	
30	30

It is recommended to show students visually this type of solution.

Sara has 30. Perla has 30, too. Perla has 15 more than Sara.

$$(30) + (30) + (15) = (75) \text{ (Total)}$$

C.

? = 30	
15	30 - 15



D.

? = 75		
30	30	15

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose two (2) correct answers.

Note: It is recommended that students always solve the equation first.

$$? - 52 = 10$$

Use a **fact family** as needed:

$$\begin{array}{ll} ? - 52 = 10 & 10 + 52 = ? \\ ? - 10 = 52 & 52 + 10 = ? \end{array}$$

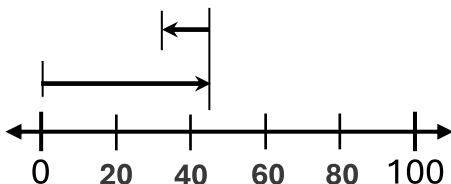
A.

52	
10	?

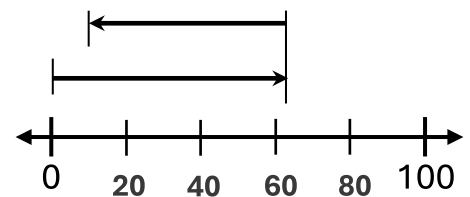
B.

?	
10	62

C.



D.



E.

$$? = 42$$



F.

$$? = 62$$

Two (2) Digit Addition and Subtraction Practice – V5

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) John played video games for 20 minutes on Saturday. Jesus played video games for 10 more minutes than John.

Which diagram below correctly shows the total number of minutes that John and Jesus played video games?

A.

?	
10	20

B.

?		
20	20	10

C.

?	
10	20 - 10

D.

?	
20	20

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose three (3) correct answers.

$$? - 36 = 20$$

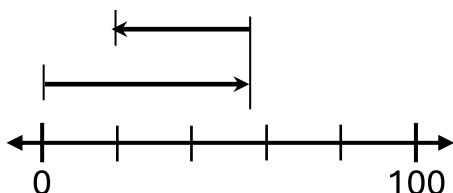
A.

36 - 20	
20	?

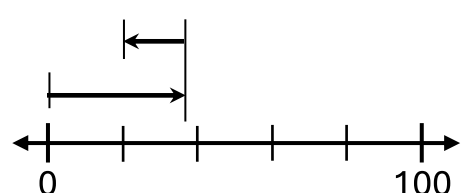
B.

?	
20	36

C.



D.



E.

$$? = 56$$

F.

$$? = 16$$

Two (2) Digit Addition and Subtraction Practice – V5

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) John played video games for 20 minutes on Saturday. Jesus played video games for 10 more minutes than John.

Which diagram below correctly shows the total number of minutes that John and Jesus played video games?

A.

? = 30	
10	20

✓

B.

? = 50		
20	20	10

It is recommended to show students visually this type of solution.

John played 20. Jesus played 20, too. Jesus played 10 more than John.

$$\textcircled{20} + \textcircled{20} + \textcircled{10} = \textcircled{50} \text{ (Total)}$$

C.

? = 20	
10	20 - 10

D.

? = 40	
20	20

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose three (3) correct answers.

Note: It is recommended that students always solve the equation first.

$$? - 36 = 20$$

Use a **fact family** as needed:

$$\begin{array}{ll} ? - 36 = 20 & 20 + 36 = ? \\ ? - 20 = 36 & 36 + 20 = ? \end{array}$$

A.

36 - 20	
20	?

✓

B.

?	
20	36

Addition Model, but part of same Fact Family that is mathematically valid for this subtraction equation.

C.

D.

✓

E.

? = 56

✓

F.

? = 16

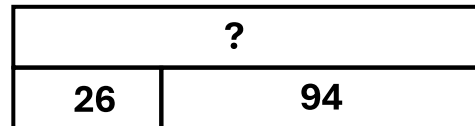
Two (2) Digit Addition and Subtraction Practice – V6

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Quick-Mart had 94 Snickers bars on Monday. On Friday, the store had only 26 Snickers bars left. Which answer below best represents one-way to find the number of Snickers bars that were sold during the week?

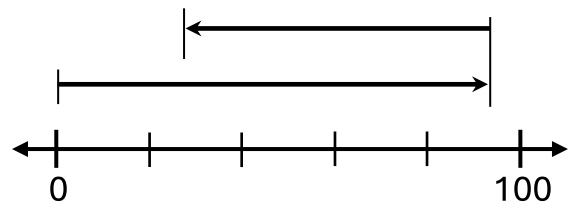
(A.) $? - 26 = 94$

(B.)



(C.) $94 + 26 = ?$

(D.)



Directions: Solve the problem below. Provide answer(s) as indicated.

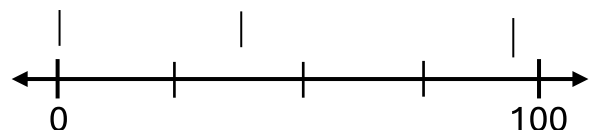
- 1.) Solve the addition equation. Write the ***fact family***.
Draw the arrows on the whole number line that correctly represents the equation.
Write the whole numbers in each rectangle that represents the addition equation.

$37 + 58 = ?$

- a.) Solve the addition equation and write the sum on the line: _____

Write the *fact family*:

- b.) Draw the arrows on the number line that represents the addition equation.
 (Label the number line – it is divided in 25's)



- c.) Write the whole number in each rectangle on the line provided that correctly represents the addition equation.

_____	_____

Two (2) Digit Addition and Subtraction Practice – V6

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Quick-Mart had 94 Snickers bars on Monday. On Friday, the store had only 26 Snickers bars left. Which answer below best represents one-way to find the number of Snickers bars that were sold during the week?

Use a fact family as needed:

$$94 - ? = 26 \quad 94 - 26 = ? \quad ? + 26 = 94 \quad 26 + ? = 94$$

A. $? - 26 = 94$

$$\begin{array}{r} 94 \\ - 26 \\ \hline 68 \end{array}$$

B.

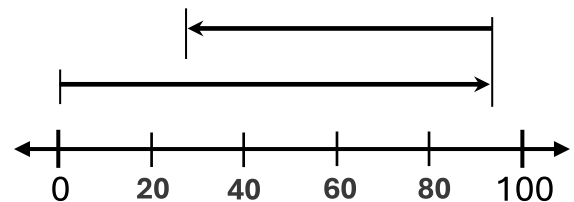
?	
26	94

Pedagogical Note: It is strongly recommended that students write the fact family each time on these problems since addition and subtraction are both given as solutions.

C. $94 + 26 = ?$



D.



Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) **Solve** the addition equation. **Write** the fact family.
Draw the arrows on the whole number line that correctly represents the equation.
Write the whole numbers in each rectangle that represents the addition equation.

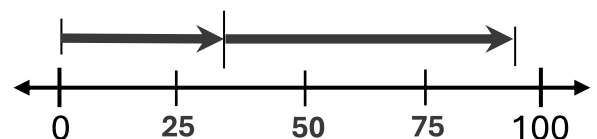
$$37 + 58 = ?$$

- a.) Solve the addition equation and write the sum on the line: 95

Write the fact family:

$95 - 37 = 58$	$37 + 58 = 95$
$95 - 58 = 37$	$58 + 37 = 95$

- b.) Draw the arrows on the number line that represents the addition equation.
 (Label the number line – it is divided in 25's)



- c.) Write the whole number in each rectangle on the line provided that correctly represents the addition equation.

95	
37	58

Two (2) Digit Addition and Subtraction Practice – V7

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Betty is reading a book with 97 pages. She needs to read 38 more pages to finish the book. Which answers below best represents two-ways to find the number of pages that Betty has already read?

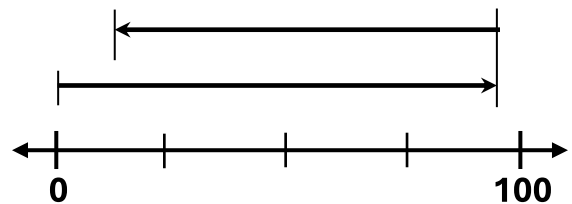
A. $38 - ? = 97$

B.

?	
38	97

C. $97 - 38 = ?$

D.



E. $38 + 97 = ?$

F.

97	
38	?

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Priscilla has 50 pennies. Victor has 25 less pennies than Priscilla. How many pennies do they have together? Which **strip diagram** can be used to find the **total** number of pennies that both Victor and Priscilla have?

A.

?	
25	25

B.

?		
25	50	10

C.

?	
50	50 - 25

D.

?	
25	25 - 10

Two (2) Digit Addition and Subtraction Practice – V7

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Betty is reading a book with 97 pages. She needs to read 38 more pages to finish the book. Which answers below best represents two-ways to find the number of pages that Betty has already read?

A. $38 - ? = 97$

B.

?	
38	97

Use a *fact family* as needed:

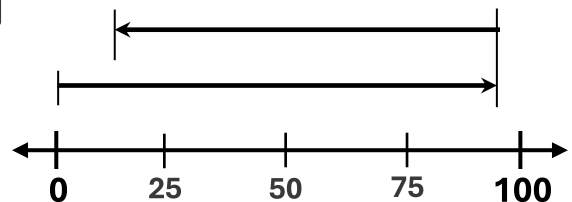
$97 - 38 = ?$ $97 - ? = 38$ $? + 38 = 97$ $38 + ? = 97$

✓ D.

$97 - 38 = ?$

97
- 38
59

D.



E. $38 + 97 = ?$

✓ F.

97	
38	?

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Priscilla has 50 pennies. Victor has 25 less pennies than Priscilla. How many pennies do they have together? Which **strip diagram** can be used to find the total number of pennies that both Victor and Priscilla have?

A.

? = 50	
25	25

B.

? = 85		
25	50	10

It is recommended to show students visually this type of solution.

Priscilla has 50. Victor has 25 less than Priscilla.

50	+	50 - 25	=	?
50	+	25	=	75 (Total)

✓ C.

? = 75	
50	50 - 25

D.

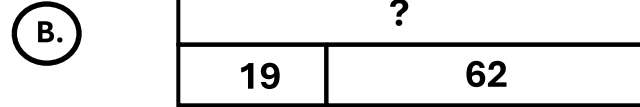
? = 40	
25	25 - 10

Two (2) Digit Addition and Subtraction Practice – V8

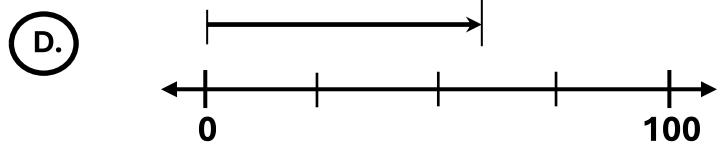
Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Blaine is 62 years old. Bettina is 19 years old. Which answers below best represents three-ways to find the difference between their ages?

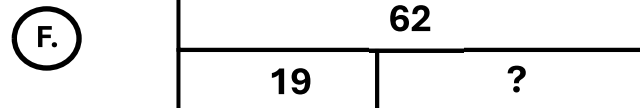
(A.) $62 - 19 = ?$



(C.) $19 - ? = 62$

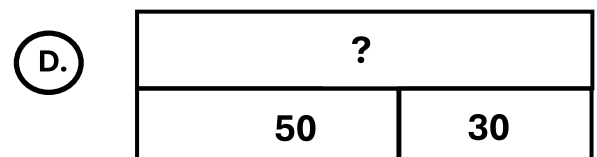
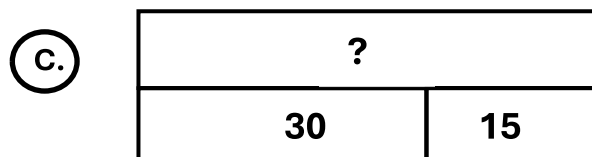
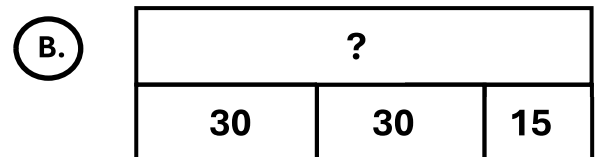
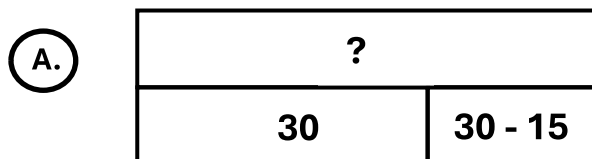


(E.) $62 + 19 = ?$



Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Jim has 30 books. Jenny has 15 more books than Jim. Which **strip diagram** can be used to find the total number of books Jim and Jenny own?



Two (2) Digit Addition and Subtraction Practice – V8

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Blaine is 62 years old. Bettina is 19 years old. Which answers below best represents three-ways to find the difference between their ages?

Use a fact family as needed:
 $62 - 19 = ?$ $62 - ? = 19$ $? + 19 = 62$ $19 + ? = 62$



A.

$62 - 19 = ?$

B.

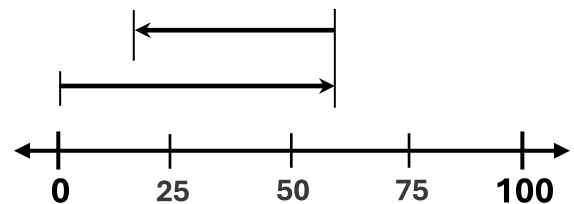
?	
19	62

C.

$19 - ? = 62$

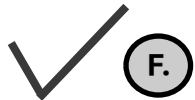


D.



E.

$62 + 19 = ?$



F.

62	
19	?

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Jim has 30 books. Jenny has 15 more books than Jim. Which **strip diagram** can be used to find the **total** number of books Jim and Jenny own?

A.

? = 45	
30	30 - 15



B.

? = 75		
30	30	15

It is recommended to show students visually this type of solution.

Jim has 30. Jenny has 15 more than Jim.

$$\begin{array}{rcl} \textcircled{30} & + & \textcircled{30 + 15} = ? \\ \textcircled{30} & + & \textcircled{45} = \textcircled{75} \text{ (Total)} \end{array}$$

C.

? = 45	
30	15

D.

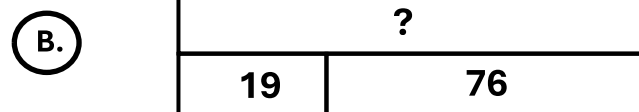
? = 80	
50	30

Two (2) Digit Addition and Subtraction Practice – V9

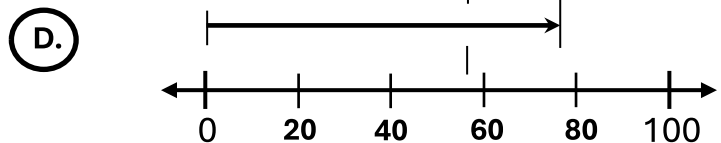
Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Jessie is reading a chapter book with 76 pages. He has 19 pages left to read. Which answer below best represents one-way to find the page number Jessie is on in the book?

(A.) $? - 19 = 76$

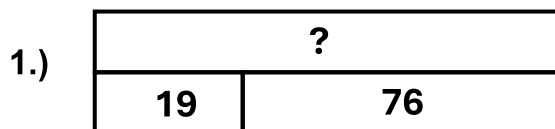


(C.) $76 + 19 = ?$

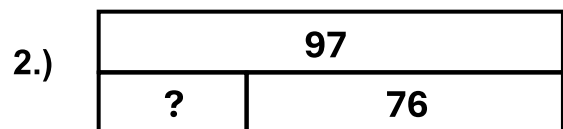


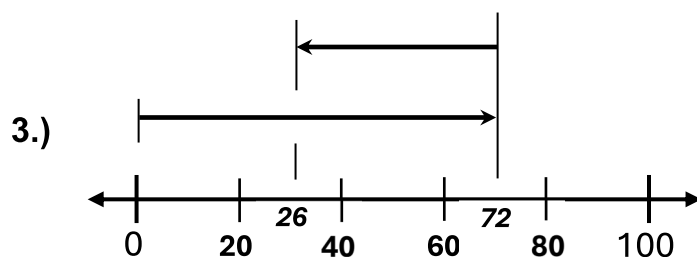
Directions: Solve the problem below. Provide answer(s) as indicated.

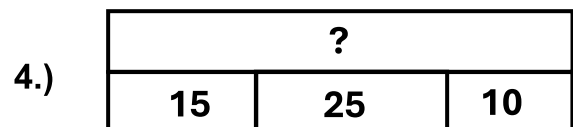
Write on the line provide if the model is an addition or subtraction problem. Then, **write** the numeric equation for that model on the line provided. Example 1 is done for you.



Addition $19 + 76 = ?$







Two (2) Digit Addition and Subtraction Practice – V9

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Jessie is reading a chapter book with 76 pages. He has 19 pages left to read. Which answer below best represents one-way to find the page number Jessie is on in the book?

Use a **fact family** as needed:

$$76 - 19 = ? \quad 76 - ? = 19 \quad ? + 19 = 76 \quad 19 + ? = 76$$

Pedagogical Note: The student should solve the word problem, first. Then, they know what they are looking for.

A. $? - 19 = 76$

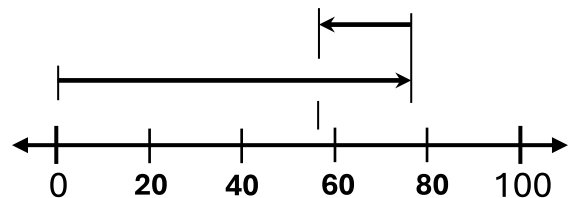
B. $? + 19 = 76$

?	
19	76

Pedagogical Note: It is strongly recommended that students write the fact family each time on these problems since addition and subtraction are both given as solutions.

C. $76 + 19 = ?$

$$\begin{array}{r} 76 \\ - 19 \\ \hline 57 \end{array}$$



Directions: **Solve** the problem below. Provide answer(s) as indicated.

Write on the line provide if the model is an addition or subtraction problem. Then, **write** the numeric equation for that model on the line provided. Example 1 is done for you.

1.)

?	
19	76

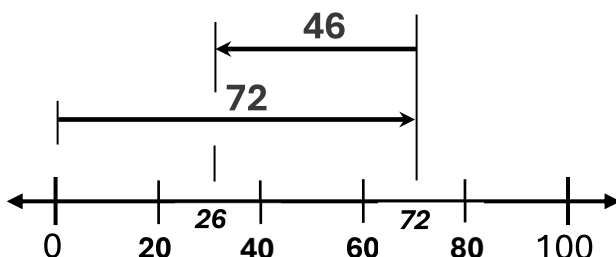
Addition $19 + 76 = ?$
 $19 + 76 = 95$

2.)

97	
?	76

Subtraction $97 - 76 = ?$
 $97 - 76 = 21$

3.)



Subtraction $72 - 26 = ?$
 $72 - 26 = 46$

4.)

?		
15	25	10

Addition $15 + 25 + 10 = ?$
 $15 + 25 + 10 =$

Two (2) Digit Addition and Subtraction Practice – V10

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Pat has 84 dollars. After buying Girl Scout Cookies, she has 45 dollars left. Which answers below best represents two-ways to find the amount of money Pat spent on cookies?

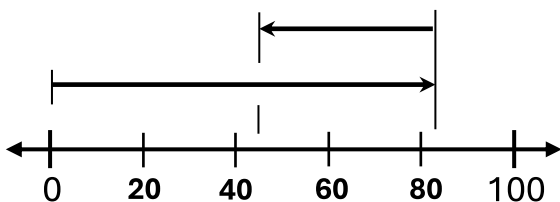
(A.)

$$? - 84 = 45$$

(B.)

?	
45	84

(C.)



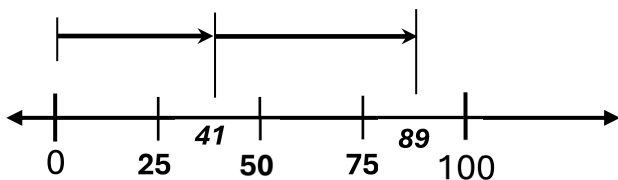
(D.)

$$84 - ? = 45$$

Directions: Solve the problem below. Provide answer(s) as indicated.

Write on the line provide if the model is an addition or subtraction problem. Then, write the numeric equation for that model on the line provided.

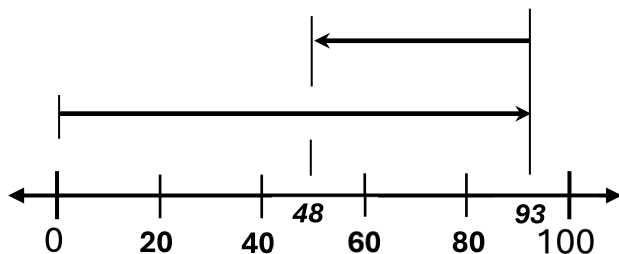
1.)



2.)

?		
13	24	9

3.)



4.)

80	
24	?

Two (2) Digit Addition and Subtraction Practice – V10

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Pat has 84 dollars. After buying Girl Scout Cookies, she has 45 dollars left. Which answers below best represents two-ways to find the amount of money Pat spent on cookies?

Use a fact family as needed:

$$84 - 45 = ? \quad 84 - ? = 45 \quad ? + 45 = 84 \quad 45 + ? = 84$$

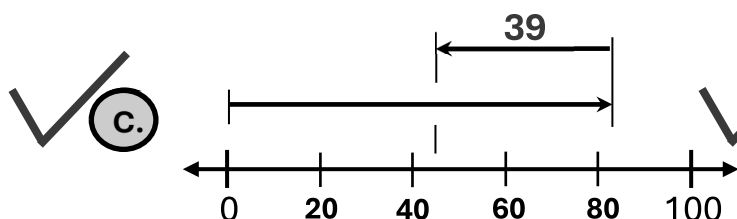
Pedagogical Note: The student should solve the word problem, first. Then, they know what they are looking for.

(A.) $? - 84 = 45$

(B.)

?	
45	84

Pedagogical Note: It is strongly recommended that students write the fact family each time on these problems since addition and subtraction are both given as solutions.

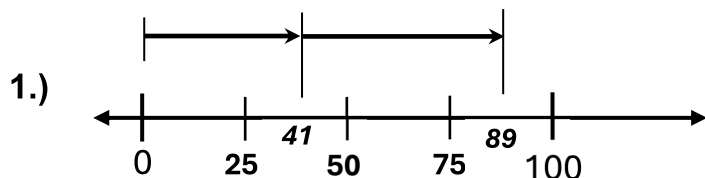


✓ (D.) $84 - ? = 45$

84
- 45
39

Directions: **Solve** the problem below. Provide answer(s) as indicated.

Write on the line provide if the model is an addition or subtraction problem. Then, **write** the numeric equation for that model on the line provided.



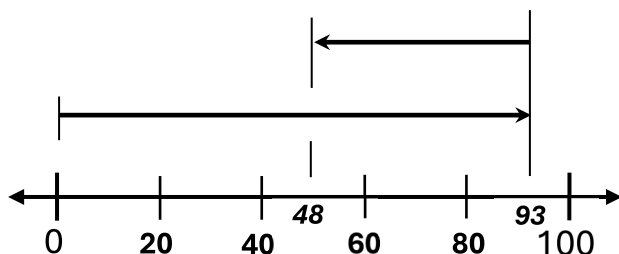
Addition $41 + ? = 89$
 $41 + 48 = 89$

2.)

?		
13	24	9

Addition $13 + 24 + 9 = ?$
 $13 + 24 + 9 = 46$

3.)



Subtraction $93 - 48 = ?$
 $93 - 48 = 45$

4.)

80	
24	?

Subtraction $80 - 24 = ?$
 $80 - 24 = 56$

Section 4

Solving Problems Demonstrating Conceptual Understanding

Three Digit Numbers

Student Practice Resource

Three (3) Digit Addition and Subtraction Practice – V1

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Sal and Ramona enjoy reading books. Sal is reading a book with 237 pages. Ramona is reading a novel with 185 pages. What is the total number of pages in both of their books?

Select two (2) correct answers from the choices below that correctly solve the problem.

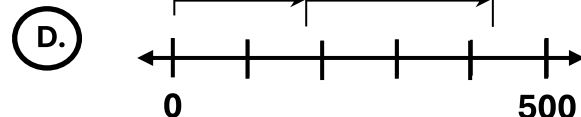
A.

?	
185	237

B.

237	
?	185

B. 322



E.

?	
237	185 - 15

F.

?		
237	185	15

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose two (2) correct solutions.

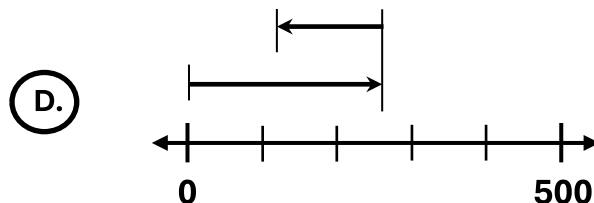
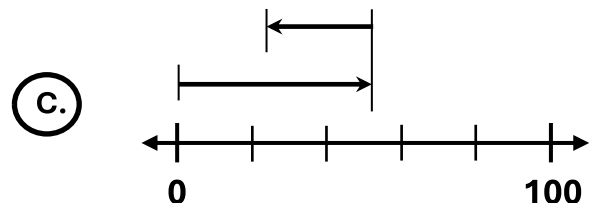
$? - 152 = 119$

A.

?	
33	152

B.

152	
?	119



E. ? = 31

F. ? = 271

Three (3) Digit Addition and Subtraction Practice – V1

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Sal and Ramona enjoy reading books. Sal is reading a book with 237 pages. Ramona is reading a novel with 185 pages. What is the total number of pages in both of their books?

Select two (2) correct answers from the choices below that correctly solve the problem.



? = 422	
185	237

$$\begin{array}{r} 237 \\ + 185 \\ \hline 422 \end{array}$$

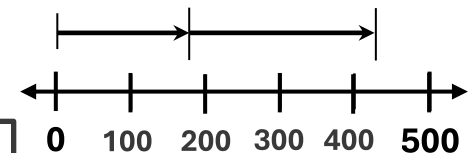
(B.)

237	
?	185

Note: Students should first solve the problem, numerically.

(B.)

322



Note: Students must be able to discern and label the salient points of a number line.

(E.)

? = 407	
237	185 - 15

(F.)

? = 437		
237	185	15

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer for the subtraction equation shown in the box below. Choose two (2) correct solutions.

Note: It is recommended that students always solve the equation first.

$$? - 152 = 119$$

Use a **fact family** as needed:

$$\begin{array}{ll} ? - 152 = 119 & 119 + 152 = ? \\ ? - 119 = 152 & 152 + 119 = ? \end{array}$$

(A.)

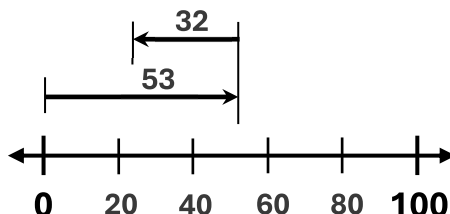
?	
33	152

$$\begin{array}{r} 119 \\ + 152 \\ \hline 271 \end{array}$$

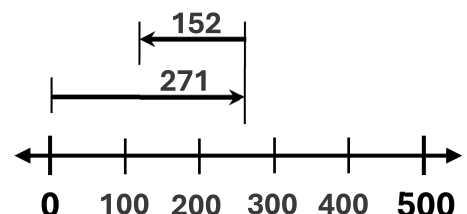
(B.)

152	
?	119

(C.)



(D.)



(E.)

? = 31



(F.)

? = 271

Three (3) Digit Addition and Subtraction Practice – V2

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Becca played soccer for 120 minutes on Saturday. Jesus played soccer for 50 more minutes than Becca.

Which **strip diagram** below correctly shows the total number of minutes that Becca and Jesus played soccer?

A.

?	
120	120

B.

?		
120	120	50

C.

?	
120	120 - 50

D.

?	
120	50

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model, equation or numeric answer of the subtraction equation shown in the box below. Choose three (3) correct answers.

$$? - 236 = 179$$

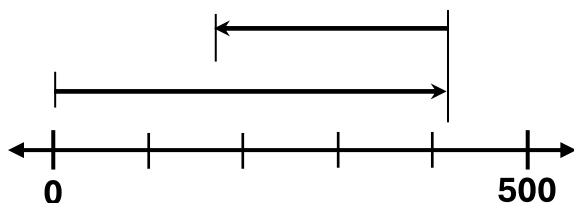
A.

236 - 179	
?	415

B.

?	
179	236

C.



D.

$$236 - 179 = ?$$

E.

$$? = 415$$

F.

$$? = 57$$

Three (3) Digit Addition and Subtraction Practice – V2

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Becca played soccer for 120 minutes on Saturday. Jesus played soccer for 50 more minutes than Becca.

Which **strip diagram** below correctly shows the total number of minutes that Becca and Jesus played soccer?

A.

? = 30	
120	120



B.

? = 290		
120	120	50

It is recommended to show students visually this type of solution.

Becca played 120. Jesus played 120, too. Jesus played 50 more than Becca.

$$\textcircled{120} + \textcircled{120} + \textcircled{50} = \textcircled{290} \text{ (Total)}$$

C.

? = 190	
120	120 - 50

D.

? = 170	
120	50

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model, equation or numeric answer of the subtraction equation shown in the box below. Choose three (3) correct answers.

Note: It is recommended that students always solve the equation first.

$$? - 236 = 179$$

Use a **fact family** as needed:

$$\begin{array}{ll} ? - 236 = 179 & 179 + 236 = ? \\ ? - 179 = 236 & 236 + 179 = ? \end{array}$$

A.

236 - 179	
?	415

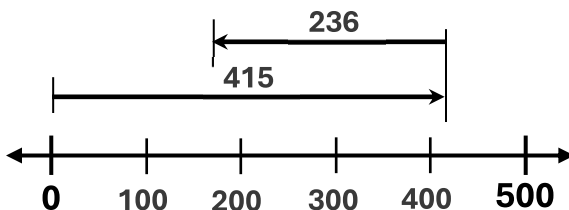
$$\begin{array}{r} 179 \\ + 236 \\ \hline 415 \end{array}$$

B.

? = 415	
179	236

Addition Model, but part of same Fact Family that is mathematically valid for this subtraction equation.

C.



D.

$$236 - 179 = ?$$

Many students benefit from writing the fact family in problems like these. They are developmentally complicated at their ages.

E.

$$? = 415$$

F.

$$? = 57$$

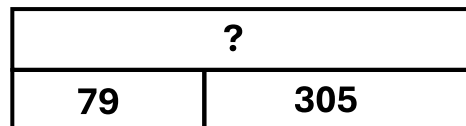
Three (3) Digit Addition and Subtraction Practice – V3

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Mesa Mart sells ice cream bars. The store has 305 ice cream bars on the shelf. Five days later, the store had only 79 ice cream bars left. Which answer below best represents two-ways to find the number of ice cream bars that were sold over the 5 days?

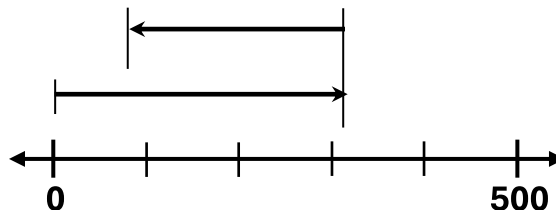
(A.) $? - 79 = 305$

(B.)



(C.) $305 - ? = 79$

(D.)



Directions: Solve the problem below. Provide answer(s) as indicated.

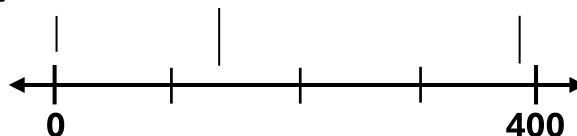
- 1.) Solve the addition equation. Write the **fact family**.
Draw the arrows on the whole number line that correctly represents the equation.
Write the whole numbers in each rectangle that represents the addition equation.

$137 + 258 = ?$

- a.) Solve the addition equation and write the sum on the line: _____

Write the *fact family*:

- b.) Draw the arrows on the number line that represents the addition equation.
 (Label the number line – it is divided in 100's)



- c.) Write the whole number in each rectangle on the line provided that correctly represents the addition equation.

_____	_____

Three (3) Digit Addition and Subtraction Practice – V3

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Mesa Mart sells ice cream bars. The store has 305 ice cream bars on the shelf. Five days later, the store had only 79 ice cream bars left. Which answer below best represents two-ways to find the number of ice cream bars that were sold over the 5 days?

(A.) $? - 79 = 305$

$$\begin{array}{r} 305 \\ - 79 \\ \hline 226 \end{array}$$

(B.)

?	
79	305

Use a **fact family** as needed:

$305 - ? = 79$ $305 - 79 = ?$ $? + 79 = 305$ $79 + ? = 305$

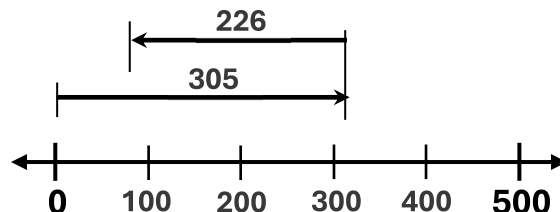
Pedagogical Note: It is strongly recommended that students write the fact family each time on these problems since addition and subtraction are both given as solutions.



(C.) $305 - ? = 79$



(D.)



Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) **Solve** the addition equation. **Write** the **fact family**.
Draw the arrows on the whole number line that correctly represents the equation.
Write the whole numbers in each rectangle that represents the addition equation.

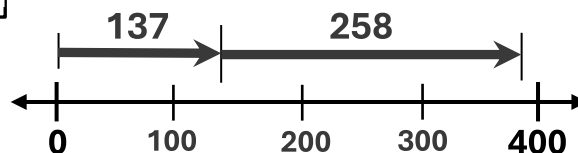
$137 + 258 = ?$

- a.) Solve the addition equation and write the sum on the line: 395

Write the fact family:

$395 - 137 = 258$ $137 + 258 = 395$

$395 - 258 = 137$ $258 + 137 = 395$



- b.) Draw the arrows on the number line that represents the addition equation.
 (Label the number line – it is divided in 100's)

- c.) Write the whole number in each rectangle on the line provided that correctly represents the addition equation.

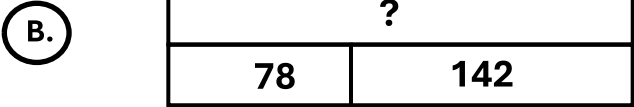
<u>395</u>	
<u>137</u>	<u>258</u>

Three (3) Digit Addition and Subtraction Practice – V4

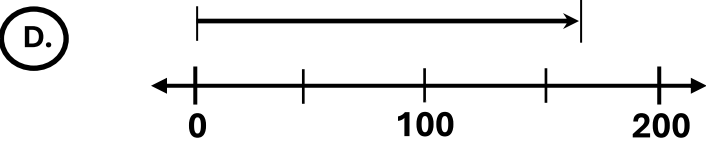
Directions: **Solve** the problem below. Provide answer(s) as indicated.

1.) Luis is reading a book with 142 pages. He needs to read 78 more pages to finish the book. Which answers below best represents two-ways to find the number of pages that Luis has already read?

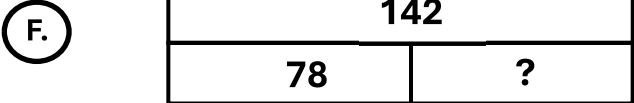
A. $78 - ? = 142$



C. $142 - 78 = ?$



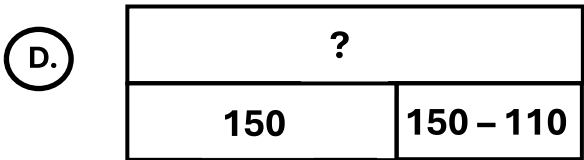
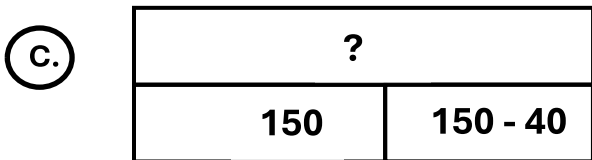
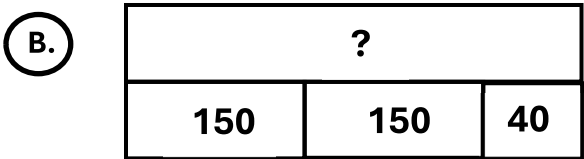
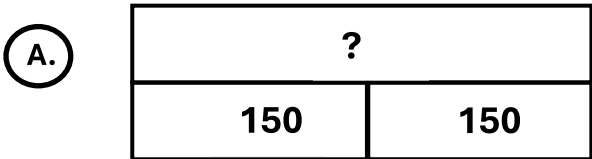
E. $78 + 142 = ?$



Directions: **Solve** the problem below. Provide answer(s) as indicated.

1.) Jeff has 150 quarters. Victor has 40 less quarters than Jeff.

Which **strip diagram** can be used to find the **total** number of quarters that both Jeff and Victor have?



Three (3) Digit Addition and Subtraction Practice – V4

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

1.) Luis is reading a book with 142 pages. He needs to read 78 more pages to finish the book. Which answers below best represents two-ways to find the number of pages that Luis has already read?

A. $78 - ? = 142$

B. $142 - 78 = ?$

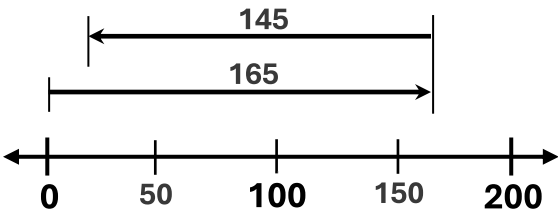
?	
78	142

Use a *fact family* as needed:
 $142 - 78 = ?$ $142 - ? = 78$ $? + 78 = 142$ $78 + ? = 142$

✓ D. $142 - 78 = ?$

142
- 78
64

D. $78 + 142 = ?$



E. $78 + 142 = ?$

✓ F. $142 - 78 = ?$

142	
78	?

Directions: **Solve** the problem below. Provide answer(s) as indicated.

1.) Jeff has 150 quarters. Victor has 40 less quarters than Jeff.

Which **strip diagram** can be used to find the **total** number of quarters that both Jeff and Victor have?

A.

? = 300	
150	150

B.

? = 340		
150	150	40

It is recommended to show students visually this type of solution.

Jeff has 150. Victor has 40 less than Jeff.

150	+	150 - 40	=	?
150	+	110	=	260 (Total)

An alternative means to solve the problem would be to write one equation:

$150 + 150 - 40 = 260$

✓ C.

? = 260	
150	150 - 40

D.

? = 190	
150	150 - 110

Three (3) Digit Addition and Subtraction Practice – V5

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Mark had his car repaired. It cost him 587 dollars. He only has 199 dollars. Which answers below best represents three-ways to compute how much more money Mark needs to pay for the cost of fixing his car?

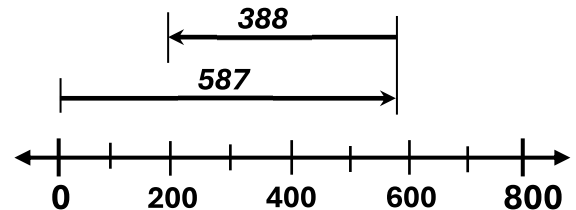
A. $587 - 199 = ?$

B.

?	
388	587

C. $? - 388 = 587$

D.



E. $587 + 199 = ?$

F.

587	
199	?

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Jerry has 200 baseball cards. Ron has 75 more cards than Jerry.

Which **strip diagram** can be used to find the **total** number of baseball cards that Jerry and Ron own?

A.

?	
200	$200 - 75$

B.

?		
200	200	75

C.

?	
200	75

D.

?	
$200 + 75$	100

Three (3) Digit Addition and Subtraction Practice – V5

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Mark had his car repaired. It cost him 587 dollars. He only has 199 dollars. Which answers below best represents three-ways to compute how much more money Mark needs to pay for the cost of fixing his car?

✓ **A.** $587 - 199 = ?$

587
- 199
388

B.

?
388 587

C. $? - 388 = 587$

✓ **D.**

Use a **fact family** as needed:

$587 - 199 = ?$ $587 - ? = 199$ $? + 199 = 587$ $199 + ? = 587$

E. $587 + 199 = ?$

✓ **F.**

587
199 ?

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Jerry has 200 baseball cards. Ron has 75 more cards than Jerry.

Which **strip diagram** can be used to find the **total** number of baseball cards that Jerry and Ron own?

A.

? = 325
200 200 - 75

✓ **B.**

? = 475
200 200 75

It is recommended to show students visually this type of solution.

Jerry has 200. Ron has 75 more cards than Jerry.

(200)	+	(200 + 75)	=	?
(200)	+	(275)	=	(475) (Total)

C.

? = 275
200 75

D.

? = 375
200 + 75 100

Three (3) Digit Addition and Subtraction Practice – V6

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Eva is reading a chapter book with 176 pages. She is on page 78. Which answer below best represents one-way to find the pages Eva has left to read in her book?

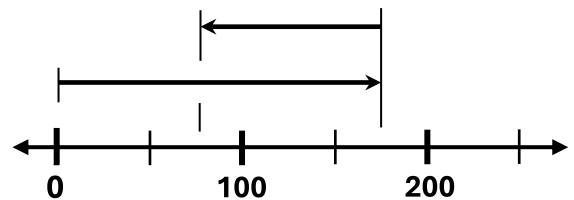
(A.) $? - 176 = 78$

(B.)

?	
78	176

(C.) $176 + 78 = ?$

(D.)



Directions: **Solve** the problem below. Provide answer(s) as indicated.

Write on the line provide if the model is an addition or subtraction problem. Then, **write** and **solve** the numeric equation for that model on the line provided. Example 1 is done for you.

$? = 395$

1.)

?	
119	276

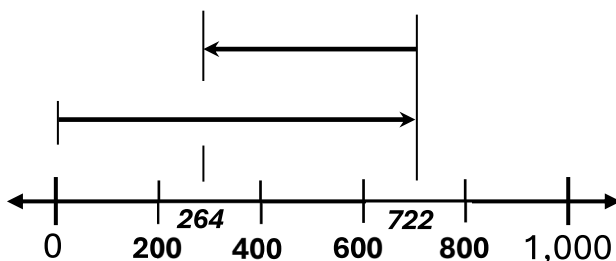
2.)

274	
?	201

Addition $119 + 276 = ?$

$119 + 276 = 395$

3.)



4.)

?		
250	250	70

Three (3) Digit Addition and Subtraction Practice – V6

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Eva is reading a chapter book with 176 pages. She is on page 78. Which answer below best represents one-way to find the pages Eva has left to read in her book?

Use a **fact family** as needed:

$$176 - 78 = ? \quad 176 - ? = 78 \quad ? + 78 = 176 \quad 78 + ? = 176$$

Pedagogical Note: The student should solve the word problem, first. Then, they know what they are looking for.

A. $? - 176 = 78$

B. $?$

$?$	
78	176

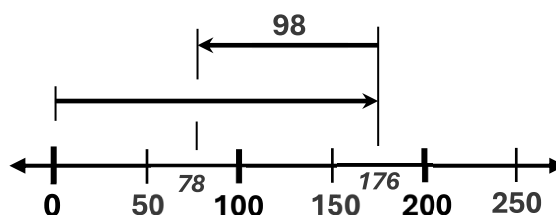
Pedagogical Note: It is strongly recommended that students write the fact family each time on these problems since addition and subtraction are both given as solutions.

C. $176 + 78 = ?$

$$\begin{array}{r} 176 \\ - 78 \\ \hline 98 \end{array}$$



D. $?$



Directions: **Solve** the problem below. Provide answer(s) as indicated.

Write on the line provide if the model is an addition or subtraction problem. Then, **write** and **solve** the numeric equation for that model on the line provided. Example 1 is done for you.

$? = 395$

1.)

$?$	
119	276

Addition $119 + 276 = ?$

$$119 + 276 = 395$$

2.)

274	
$?$	201

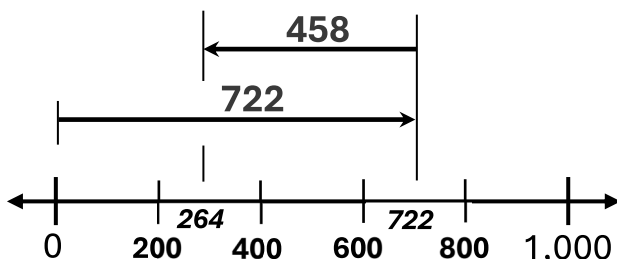
$? = 73$

Subtraction $274 - 201 = ?$

$$274 - 201 = 73$$

$? = 570$

3.)



Subtraction $722 - 264 = ?$

$$722 - 264 = 458$$

4.)

$?$		
250	250	70

Addition $250 + 250 + 70 = ?$

$$250 + 250 + 70 = 570$$

Three (3) Digit Addition and Subtraction Practice – V7

Directions: Solve the problem below. Provide answer(s) as indicated.

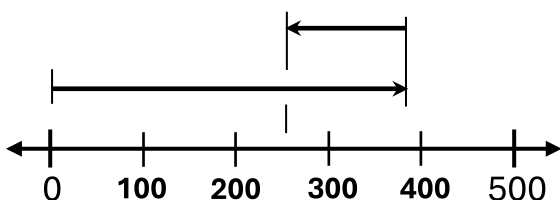
- 1.) Bob has 384 dollars. After buying groceries, he has 245 dollars left. Which answers below best represents two-ways to find the amount of money Bob spent on groceries?

A. $? - 384 = 245$

B.

?	
245	384

C.



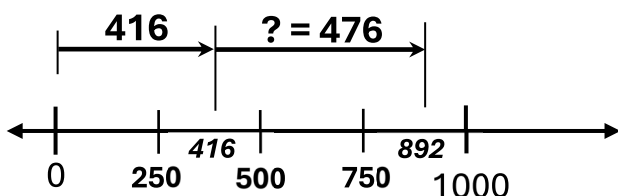
D.

$384 - ? = 245$

Directions: Solve the problem below. Provide answer(s) as indicated.

Write on the line provide if the model is an addition or subtraction problem. Then, write and solve the numeric equation for that model on the line provided. Problem 1 is done for you.

1.)



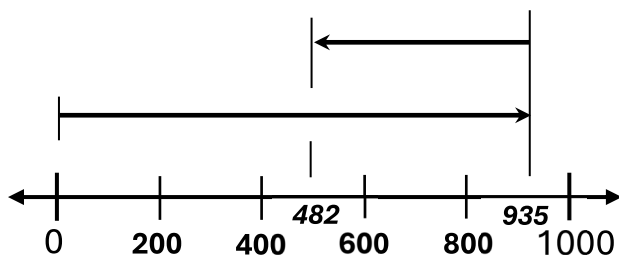
Addition $416 + ? = 892$

$416 + 476 = 892$

2.)

?		
139	246	91

3.)



4.)

808	
249	?

Three (3) Digit Addition and Subtraction Practice – V7

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Bob has 384 dollars. After buying groceries, he has 245 dollars left. Which answers below best represents two-ways to find the amount of money Bob spent on groceries?

Use a fact family as needed:

$$384 - 245 = ? \quad 384 - ? = 245 \quad ? + 245 = 384 \quad 245 + ? = 384$$

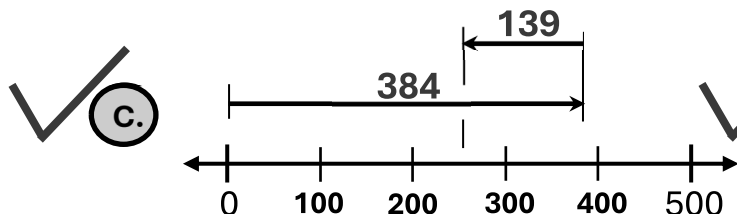
Pedagogical Note: The student should solve the word problem, first. Then, they know what they are looking for.

(A.) $? - 384 = 245$

(B.)

?	
245	384

Pedagogical Note: It is strongly recommended that students write the fact family each time on these problems since addition and subtraction are both given as solutions.



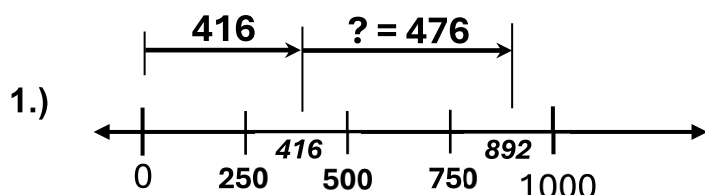
✓ (D.)

$$384 - ? = 245$$

384
- 245
139

Directions: **Solve** the problem below. Provide answer(s) as indicated.

Write on the line provide if the model is an addition or subtraction problem. Then, **write** and **solve** the numeric equation for that model on the line provided. Problem 1 is done for you.



Addition $416 + ? = 892$

$$416 + 476 = 892$$

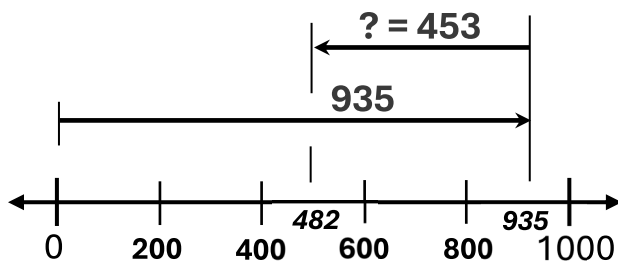
2.)

? = 476		
139	246	91

Addition $139 + 246 + 91 = ?$

$$139 + 246 + 91 = 476$$

3.)



Subtraction $935 - 482 = ?$

$$935 - 482 = 453$$

4.)

808	
249	? = 559

Subtraction $808 - 249 = ?$

$$808 - 249 = 559$$

Three (3) Digit Addition and Subtraction Practice – V8

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Rob and Don collect seashells. Rob has 130 seashells. Don has 20 more seashells than Rob.

Which **strip diagram** below correctly shows the total number of seashells that Rob and Don own?

A.

?		
130	130	20

B.

?	
130	130

C.

?	
120	120 - 20

D.

?	
20	130

Directions: Solve the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer of the subtraction equation shown in the box below. Choose two (2) correct answers.

$? - 108 = 11$

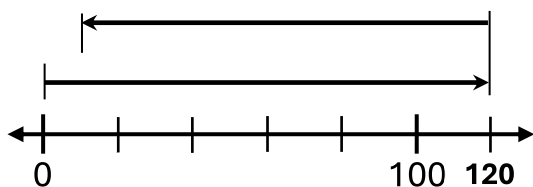
A.

108	
11	?

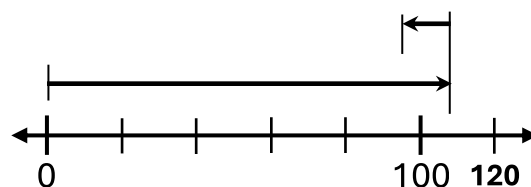
B.

?	
11	97

C.



D.



E.

$? = 97$

F.

$? = 119$

Three (3) Digit Addition and Subtraction Practice – V8

Directions: **Solve** the problem below. Provide answer(s) as indicated.

ANSWER KEY

- 1.) Rob and Don collect seashells. Rob has 130 seashells. Don has 20 more seashells than Rob.

Which **strip diagram** below correctly shows the total number of seashells that Rob and Don own?



A.

? = 280		
130	130	20

B.

? = 260	
130	130

It is recommended to show students visually this type of solution.

Rob has 130. Don has 130, too. Don has 20 more than Rob.

$$\textcircled{130} + \textcircled{130} + \textcircled{20} = \textcircled{280} \text{ (Total)}$$

C.

? = 220	
120	120 - 20

D.

? = 150	
20	130

Directions: **Solve** the problem below. Provide answer(s) as indicated.

- 1.) Identify the correct model or numeric answer of the subtraction equation shown in the box below. Choose two (2) correct answers.

Note: It is recommended that students always solve the equation first.

$$? - 108 = 11$$

Use a **fact family** as needed:

$$\begin{array}{ll} ? - 108 = 11 & 108 + 11 = ? \\ ? - 11 = 108 & 11 + 108 = ? \end{array}$$

A.

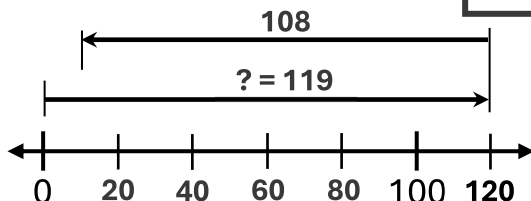
108	
11	?

B.

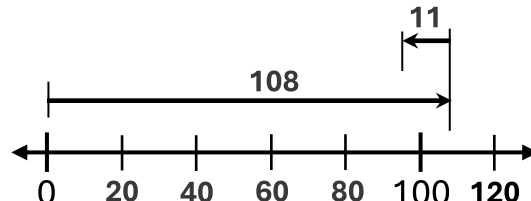
?	
11	108



C.



D.



E.

$$? = 97$$



F.

$$? = 119$$