Telling Time Analog Clock Unit

Pedagogical Tips and Student Practice

(1st through 3rd Grades)

Blaine Helwig

February 2025

Introduction and Pedagogical Recommendations

This mathematics unit is designed for elementary students learning to tell time based on analog clocks. The unit is specifically designed for 2nd and 3rd graders, but Section 1 – "Multiples Around the Clock" is developmentally appropriate for 1st graders – but all benefit from the multiple (i.e., skip counting) numeracy. There is a small debate that since the digital age, students should not learn how to tell time on an analog clock. However, I fundamentally disagree with the premise of this argument. First, analog clocks are used in many forms in our society, and these clocks will continue to be used in the future as well. Additionally, we frequently describe rotational movements in 'clockwise' or 'counterclockwise' directions. Of course, these directional descriptions are derived from the minute and hour hand movements of an analog clockface. Second, an analog clockface provides the viewer with a 60-minute window of time. For an adult or a teenager that reads the time of day on a digital clock, their mental schema of a 60-minute hour was greatly enhanced by their knowledge of how to read/tell time from an analog clock. Third, common vernacular terms of basic time such as "half-hour" or "quarter-hour" or "half-past" or "quarter till/quarter after" are easily understood when looking at an analog clockface, but not a digital clock. Moreover, learning to tell time on an analog clock is fast and easy with a well-designed, controlled and sequenced unit on time. However, the unit must be designed in order for ALL students to learn to tell/read time to mastery. In short, we must prepare children to be successful by learning to read time granularly at each step, and it is my hope that this unit accomplishes that singular objective.

This curriculum packet is aptly named an 'off-the-shelf curricular resource;' thus, a classroom teacher will not spend tremendous amounts of time preparing or sequencing the lessons. It has been done for them as they follow the lessons from multiples of the clock, to telling time on an analog clock face, and mentally mastering a timeline of a 24-hour day. However, the length of the resource may concern teachers. It should not! There are solutions for all student resource pages – which in fact doubles the size of the overall packet in student activities. Each student exercise has multiple versions to ensure the teacher can send short reinforcement exercises for homework, as needed. Moreover, the resource is designed to be taught in small 'spaced repetition' instruction each day for approximately 5 to 9 minutes. Thus, the whole analog clock unit can be taught to mastery, cumulatively in about 4 hours. It is important to emphasize that this type of mathematics instruction is different from the traditional processes. Using this instructional paradigm, all students master the activities, so students are NOT left academically behind. Each section prepares students sequentially for academic success ensuring student numeracy mastery of analog math skills.

This unit of analog time is divided into three sections, and each unit is expatiated in detail below:

Section 1 (pages 4 -14): Multiples of the Analog Clock

Section 2 (pages 15 - 49): Reading the Time on Analog Clock Faces

Section 3 (pages 50 - 76): Understanding a 24-hour Day (AM - Ante Meridiem and PM - Post Meridiem).

Note: Ante Meridiem (AM) is a Latin phrase that means 'before midday' (i.e., before 12:00 PM). It does <u>not</u> mean 'after midnight.' Post Meridiem (PM) is also a Latin phrase, and it means 'after midday.'

<u>Section 1</u>: This section prepares students with basic knowledge of an analog clock via multiples "around the clock." It is recommended that a classroom teacher repeat these exercises until students possess automaticity. *Mastery requires sufficient student practice!* If the teacher presses and motivates students on Section 1, ALL students will master the multiples of the analog clock face. Then, the content in Section 2 is relatively straightforward. In effect, Section 1 prepares the students with the prerequisite background knowledge to correctly read analog clock faces. These activities are implemented in short sessions each day (e.g., spaced repetition), and <u>not during the core lesson</u>. The instructional point is that they are both rapid and easily digestible with regard to student learning. It is recommended to start the mathematical core lesson with this lesson's 5-to-9-minute daily exercises. Then, the teacher may proceed to the core math lesson that was planned for that day. In effect, the entire analog clock unit and related student work can be completed in short, rapid and highly engaged spaced repetition student learning sessions each day.

Teaching Tips:

- 1.) The classroom should have one if not two analog clocks hung in it, so students can refer to it throughout the unit. It is also recommended that the teacher have student sets of small 12-inch by 12-inch whiteboards and dry-erase markers.
- 2.) The teacher should also engage students **chorally** to assist them in learning the multiples of 5,10, 15, and 30. These multiple combinations are good numeracy skills for students to master besides the need in basic analog clock work.
- 3.) In Versions 3 and 4 of multiples of 15 and 30 around the clock, students should draw the fractions on the clock exercise and divide their clock in 2 or 4 equal sections half hour or quarter hours.

 Note: One-fourth is synonymous with one guarter students will not know this mathematical fact.
- 4.) Students need sufficient repetition to learn any activity, but it only takes a creative and energetic teacher for all students to succeed. All students should master these five multiple versions (i.e., V1 V5), so they're amply prepared for reading the time on an analog clockface in Section 2. In short, students must possess automaticity with an analog clock face and basic time terms (V-5).
- 5.) The teacher should use clock terminology: quarter hour, half past or half hour. Quiz students until mastered: "How many minutes in a quarter hour? In a half-hour? In an hour?"

Section 2: This section focuses on reading the time of analog clocks as well as understanding 'clock talk' in our common vernacular that refers to specific times on the clock. Section 1 prepares students for success by providing a mental schema of a typical analog clock face and its divisions. In short, ALL students should be able to view an analog clock face in increments of 1 minute, 5 minutes, 10 minutes, 15 minutes and 30 minutes. There is an ample supply of half-sheet versions for student work for rapid and engaging daily spaced repetition instruction sessions as well as nightly homework to provide sufficient repetition. During these short, daily spaced repetition instructional sessions of 5 to 9 minutes, the teacher must be prepared and engaged with students. Moreover, a teacher should be observing all students' responses to ensure that ALL students are mastering the lesson content; thus, it is highly recommended that teachers use small student whiteboards and visual hand signals by students. In doing so, the teacher is aware of which students require more repetitions to procure mastery. The sessions are so short and quick that students who have mastered the material do not become bored. A teacher can also add small bits of new content for those students – but the important thing is that the teacher does not abandon students who require more repetitions in order to master the content. It is important to remember that each section and subsection sequentially and fundamentally builds on itself. When students do not master a section, it is all but guaranteed that those same students will be unsuccessful with the upcoming content in subsequent subsections.

Section 2 is granularly divided into three subsections. It begins with hours, quarter-hour, and half-hours. Then 'clock talk' follows that applies the content into the words and terms we use to describe time to others. The second subsection focuses on the 5-minute increments of reading analog clock time. Again, these student resource pages are in half-sheets. Thus, the exercises are rapid each morning prior to the core lesson, and there are practice sheets available for homework. There are enough resource sheets so the teacher can offer students more practice for homework as needed. Of course, students will not realize it is an exercise that they have worked on previously. All subsections contain an application of 'clock talk' that stresses the common language of describing time. The final subsection presses reading analog clocks in one-minute increments followed, again, by an application of 'clock talk.'

Teaching Tips:

1.) It is highly recommended that the teacher procures small (individualized) clocks to use as a manipulative that have movable hour and minute hands. These small clocks can be purchased as a 'visual' manipulative to show the teacher from their desks, pressing both student accountability and learning.



- 2.) Spaced repetition allows the teacher to use the gradual-release instructional technique with a high degree of flexibility. The teacher will discover that they can combine the "I do" and "We do," since the instructional sessions are so short and rapid. If the lessons are sequenced granularly as this analog clock unit is designed, it is relatively easy for a teacher of any experienced level to possess efficacy. It is also important for teachers to realize that students must be engaged. They must be actively learning. Thus, the quicker that the teacher can transition to "We do," the faster that students can independently progress to the "You do" stage of the gradual release methodology.
- 3.) There are also 'blank' clocks with no hour and minute hands at the end of this section, so the teacher has ready use of a large demonstration clock. There are also small student clocks where students can add the hour and minute hands after the teacher indicates a specific time. For instance, the teacher may ask students to draw the clock hands that indicate a quarter to 3. The act of drawing time in this manner ingrains content into long-term memory much more than only visually reading the time on an analog clock. **Note:** Students may inquire what the term "o'clock" actually means. That time expression is a historical holdover from the Middle English period circa 1150 to 1500 AD, and it implies "of the clock" or "according to the clock."
- 4.) It is recommended that the teacher employs the vernacular clock terms of 'clock talk' during the day to reinforce student learning. For example, the teacher can say, "We are going to lunch at a quarter to twelve." Or, "Recess is over at ten minutes past eleven."
- 5.) **Mastery of any human activity at any age requires threshold practice**. A student classified as 'general education' requires between 8 to 16 repetitions to retain content into long-term memory. Spaced repetition instruction employed on subsequent days easily affords this level of mastery since the student is practicing the content many times each day quickly with active engagement.

<u>Section 3</u>: This section prepares students with mental schema to 'globally' understand time throughout the day. It only takes student practice and good instruction, but this skill set provides students with the tools to fully grasp the concept of time. A teacher that stresses this section's content provides their students with a life-long tool. Again, the teacher must present the content well – clear and consistent explanations – and consistently repeatedly over subsequent days. As expected, second grade and third grade students quickly grasp the content, and the student activities and questions reinforce the concept of time throughout the day.

Teaching Tips:

1.) Begin with simple diagrams. It is not recommended to immediately engage students with the activities presented in Section 3. Students should draw or sketch a 'day timeline' with simple focal points: 12 midnight to 12 noon to 12 midnight. Focus on two~twelve hour periods (AM and PM), and that a day is 24 hours long. The teacher must prepare students for success with the time-line versions (i.e., V1, V2, V3, etc.) in the analog unit, or it is highly probable that they will be overwhelmed. This same sketch should be done quickly each day for at least 3 to 4 days. Add to it a little bit each day, and Socratic questioning is key – talk through the diagram as it is being built. Do <u>not</u> vary the order of the diagram from day to day – be consistent with your instruction. We are not trying to 'fool' them; our objective is cognitively founding the daily timeline.

For instance, a simple drawing can be completed with guided practice as shown below. Students can draw the sketch on whiteboards or notebook paper. They will "**get it**" with a good 'visual' diagram and a clear explanation.



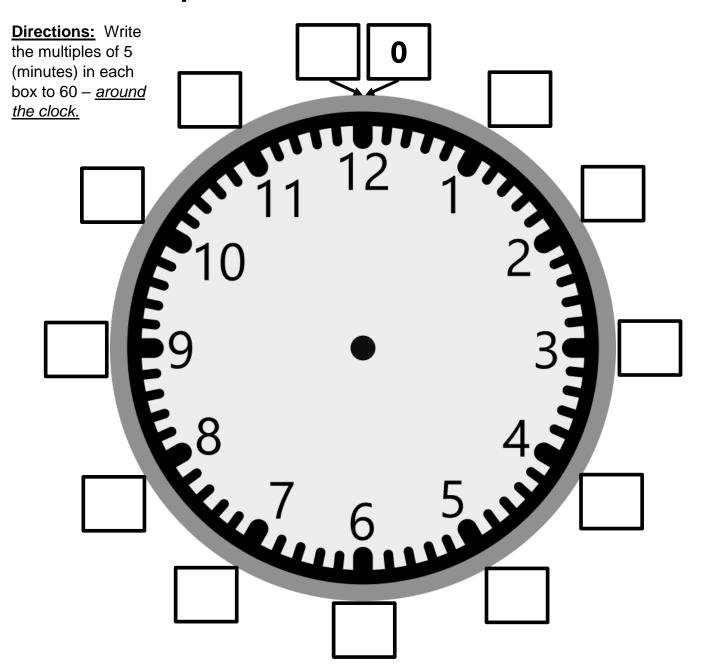
2.) Once the basic daily timeline and schema is thoroughly understood, then students are prepared for success with the analog unit activities. It is highly recommended to use guided practice ("We do.") on at least the first two versions (V1 and V2). After that, the teacher can monitor, 'rinse and repeat' instruction/practice as needed to guarantee student content mastery and success.

Section 1

Multiples "Around the Clock"

Student Practice Resource

Multiples of 5 – Around the Clock – V1



Important Clock Multiples:

Write the multiples of each number on the left. Each blank is for one multiple. Zero (0) is done for you.

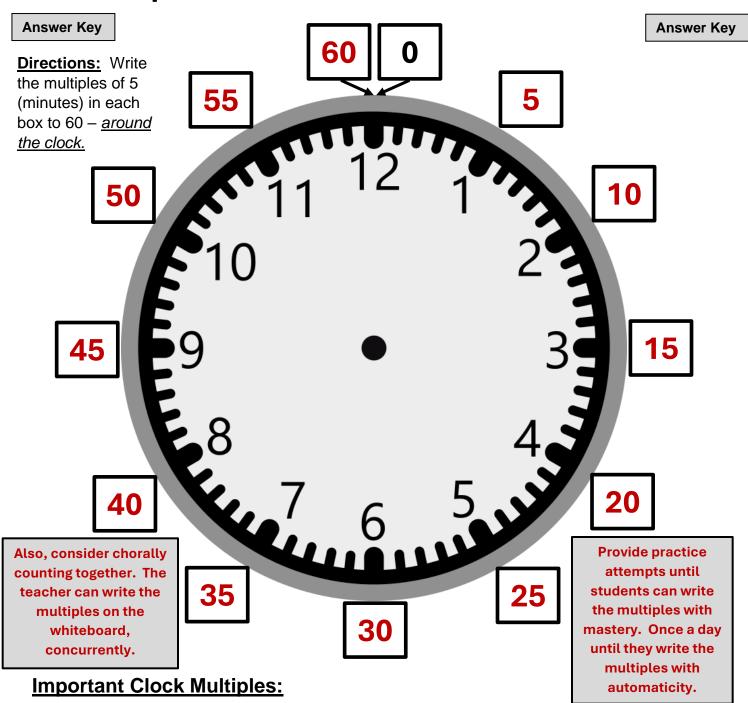
5: <u>0</u>, ___, ___, <u>__</u>, <u>__</u>, <u>__</u>, <u>60</u>

10: <u>0</u> , ___ , ___ , ___ , ___ , ___ , ___

15: <u>0</u> , ___ , ___ , ___ , ___

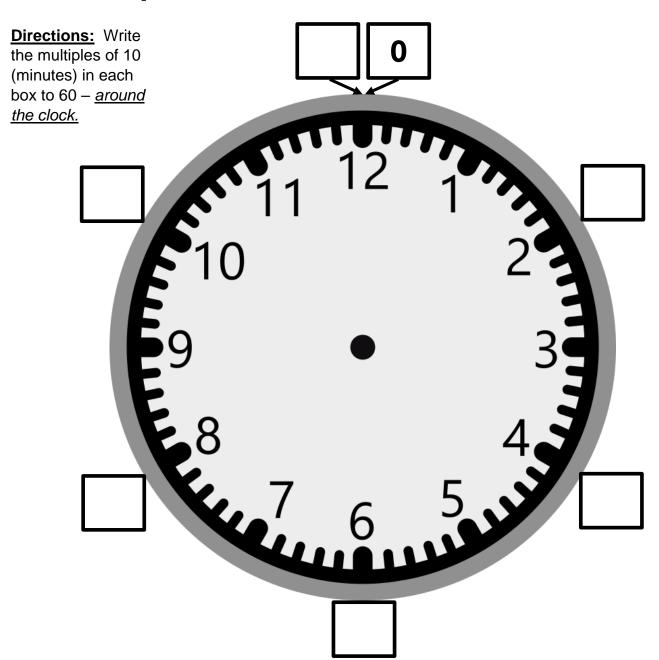
30: <u>0</u> , ___ , ___

Multiples of 5 – Around the Clock – V1



Write the multiples of each number on the left. Each blank is for one multiple. Zero (0) is done for you.

Multiples of 10's – Around the Clock – V2



Important Clock Multiples:

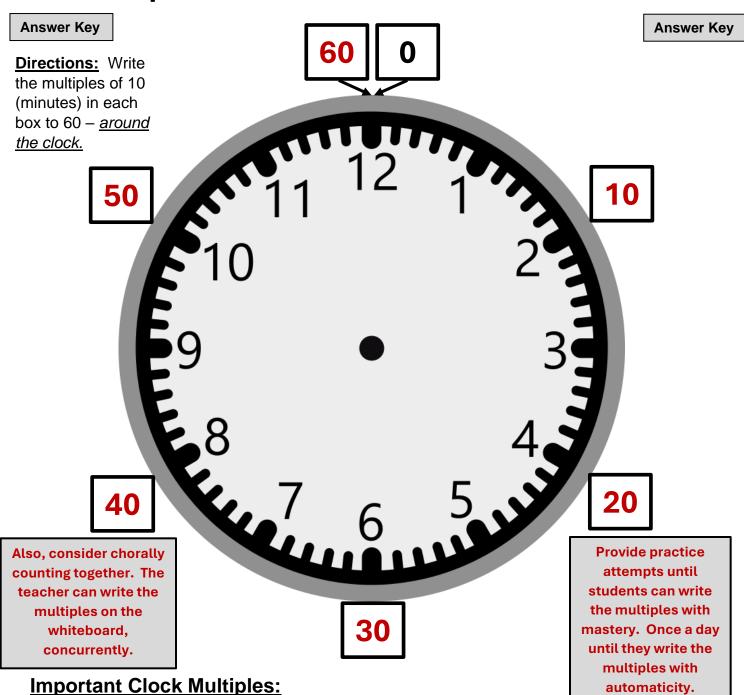
Write the multiples of each number on the left. Each blank is for one multiple. Zero (0) is done for you.

5: <u>0</u>, ___, ___, <u>60</u>

15: ____ , ____ , ____ , ____ , ____

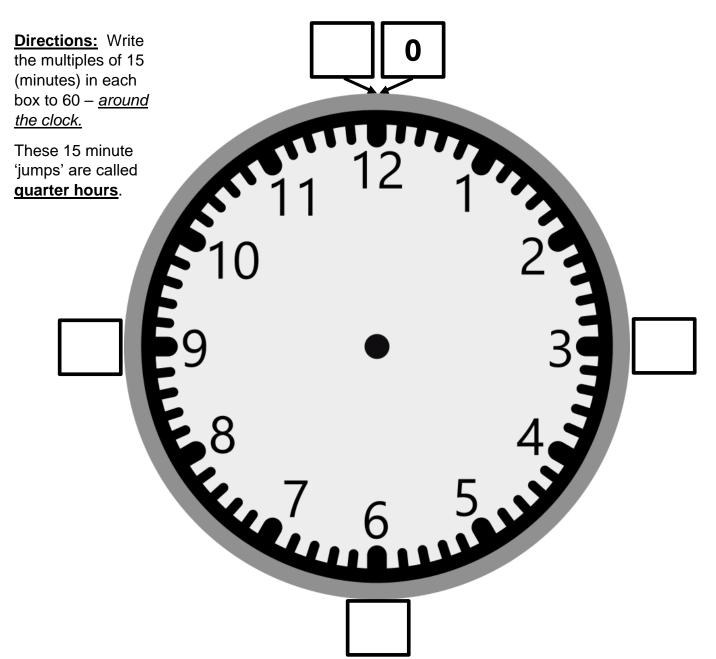
30: ____ , ____ , ____

Multiples of 10's – Around the Clock – V2



Write the multiples of each number on the left. Each blank is for one multiple. Zero (0) is done for you.

Multiples of 15 – Around the Clock – V3



Important Clock Multiples:

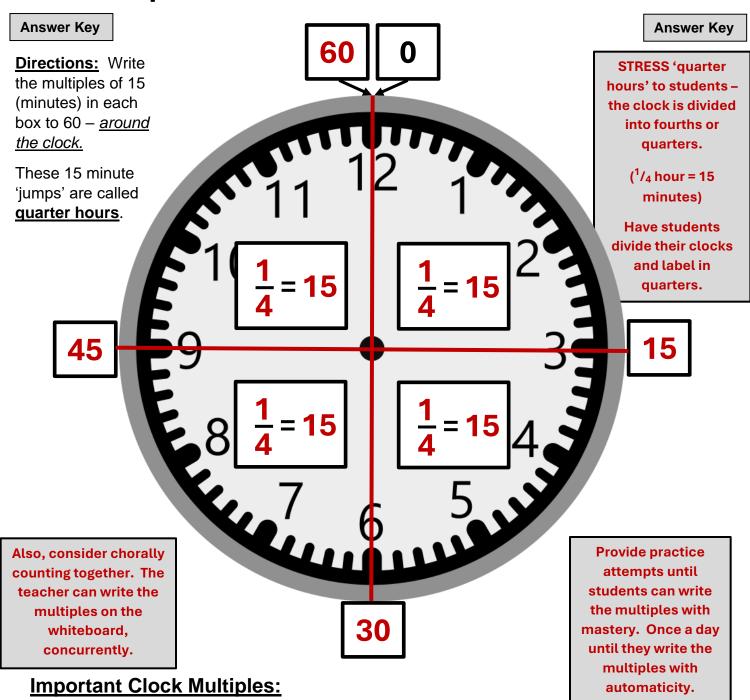
Write the multiples of each number on the left. Each blank is for one multiple. Zero (0) is done for you.

10: ___, ___, ___, ___, ___, ___

15: ____ , ____ , ____ , ____ , ____

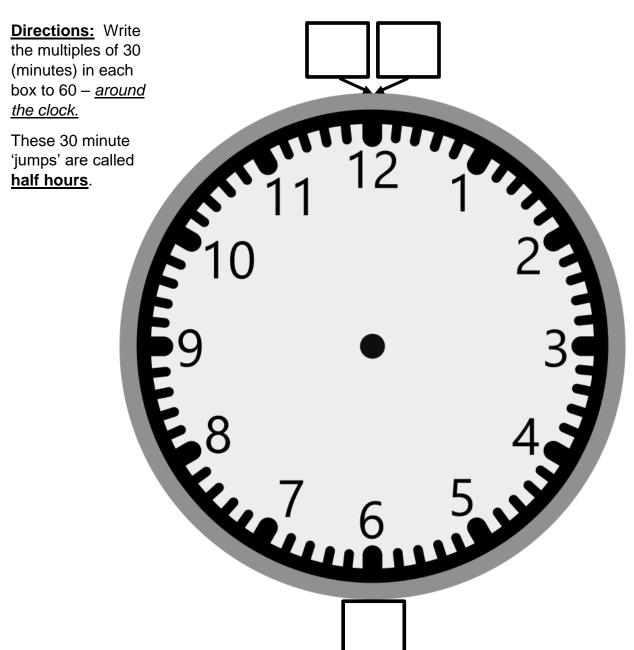
30: ____ , ____ , ____

Multiples of 15 - Around the Clock - V3



Write the multiples of each number on the left. Each blank is for one multiple. Zero (0) is done for you.

Multiples of 30 – Around the Clock – V4



Important Clock Multiples:

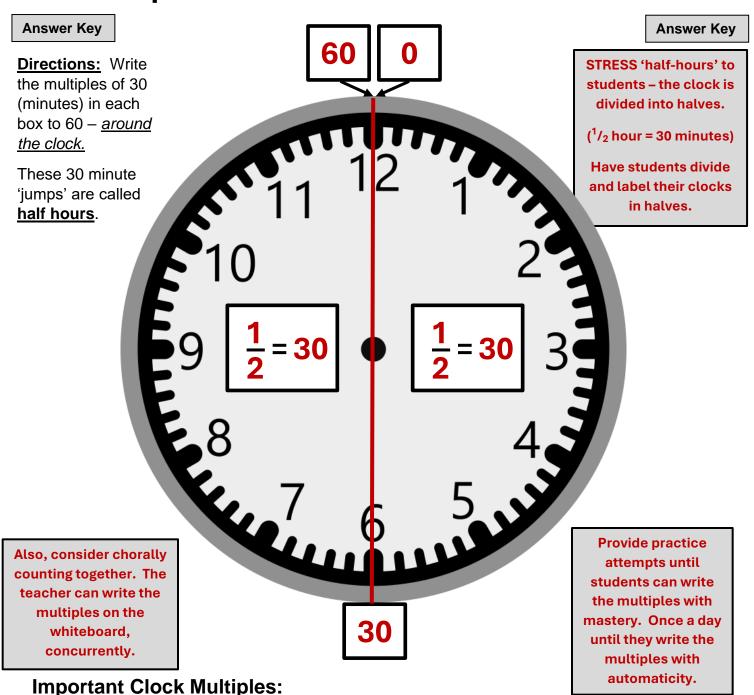
Write the multiples of each number on the left. Each blank is for one multiple. Zero (0) is done for you.

10: ___ , ___ , ___ , ___ , ___ , ___

15: ___, ___, ___, ___, ___

30: ____ , ____ , ____

Multiples of 30 - Around the Clock - V4



Write the multiples of each number on the left. Each blank is for one multiple. Zero (0) is done for you.

Clock Terms and Quantities to KNOW – V5

<u>Directions:</u> Match the quantities on the left by connecting them with an arrow with the correct clock terms in the box on the right..

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quarter hour	60 minutes
hour	30 minutes
half hour	15 minutes
60 minutes	quarter hour
15 minutes	half hour
30 minutes	1 hour

quarter hour	60 minutes
hour	half hour
half hour	15 minutes
15 minutes	quarter hour
60 minutes	30 minutes
30 minutes	an hour

<u>Directions:</u> Match the quantities on the left by connecting them with an arrow with the correct clock terms in the box on the right.

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half hour	60 minutes
quarter hour	30 minutes
hour	15 minutes
30 minutes	quarter hour
15 minutes	half hour
60 minutes	an hour

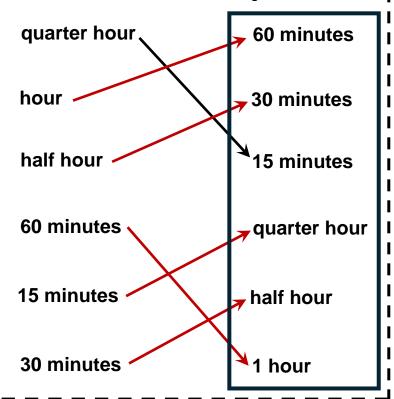
quarter hour	30 minutes
hour	quarter hour
half hour	half hour
60 minutes	60 minutes
15 minutes	an hour
30 minutes	15 minutes

Clock Terms and Quantities to KNOW – V5

Answer Key

DIRECTIONS: Match the quantities on the left by connecting them with an arrow with the correct clock terms in the box on the right.

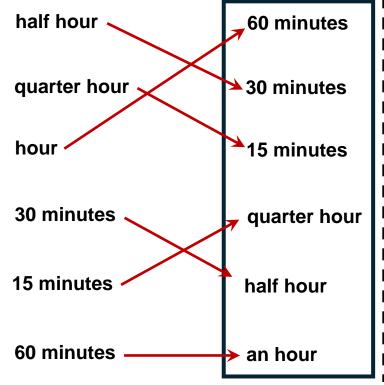
<u>Directions:</u> Match the quantities connecting them with an arrow with the correct clock terms in the box on the right.

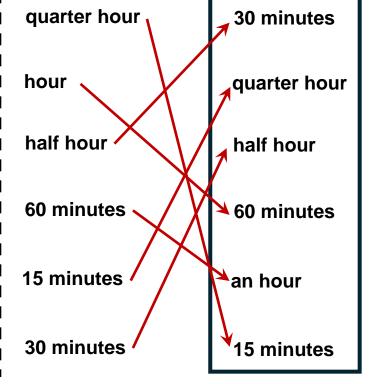


hour half hour half hour 15 minutes quarter hour 60 minutes quarter hour 30 minutes an hour

<u>Directions:</u> Match the quantities on the left by connecting them with an arrow with the correct clock terms in the box on the right.

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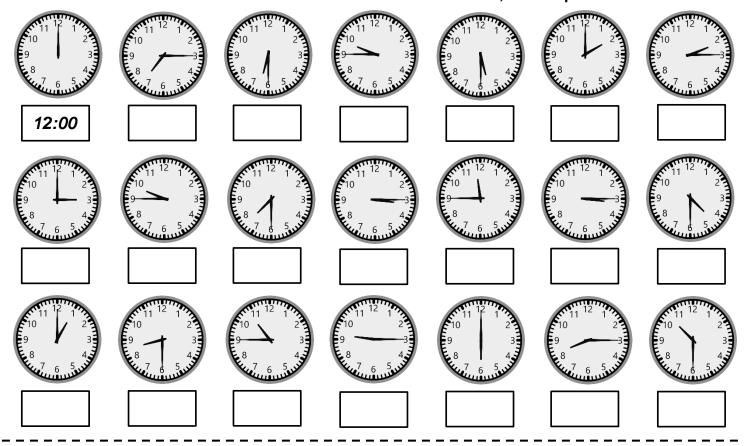
Section 2

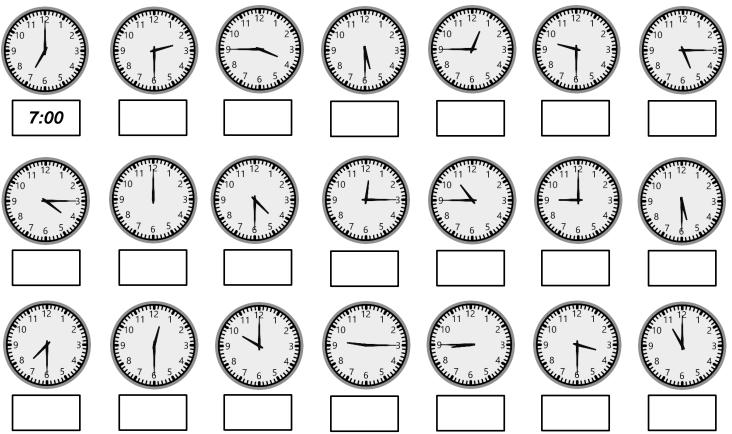
Telling Time on an Analog Clock

Student Practice Resource

Building the Numeracy of Reading Analog Time

Directions: Write the time shown on each clock to the nearest hour, half or quarter.



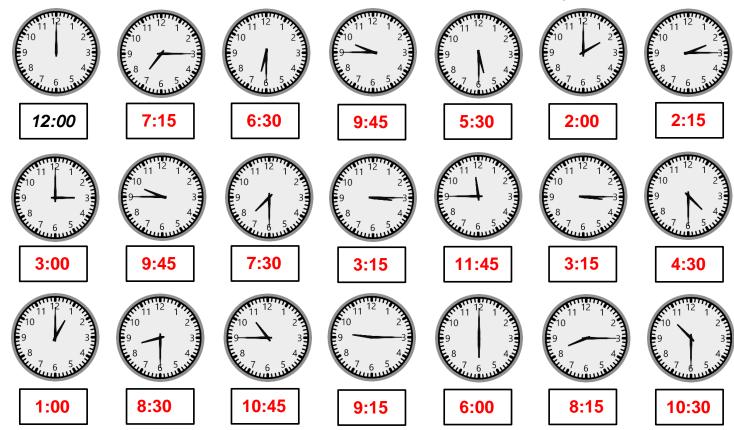


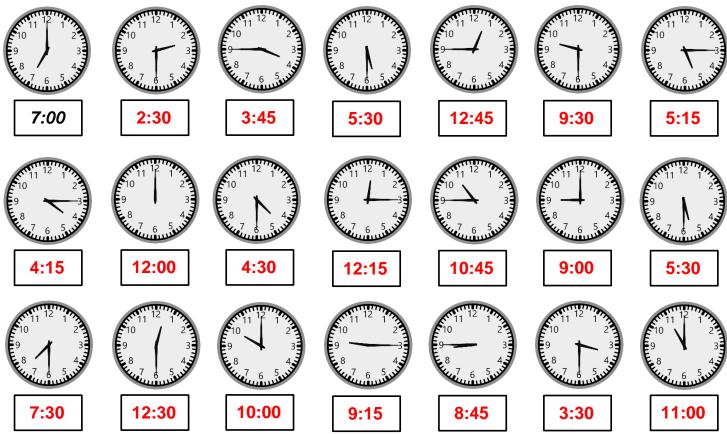
Answer Key

Building the Numeracy of Reading Analog

Answer Key

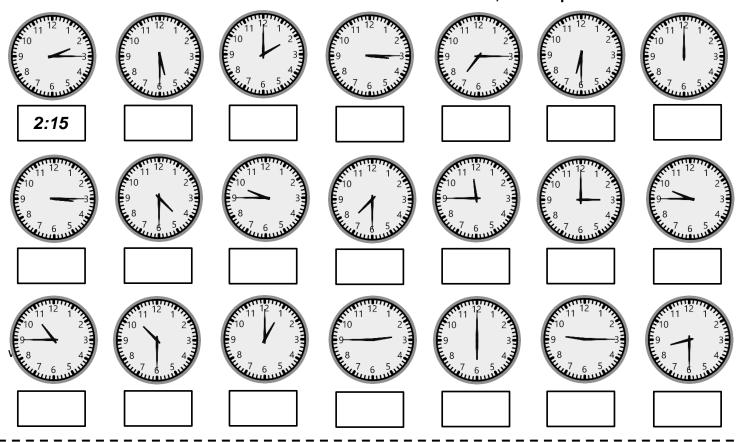
Directions: Write the time shown on each clock to the nearest hour, half or quarter.

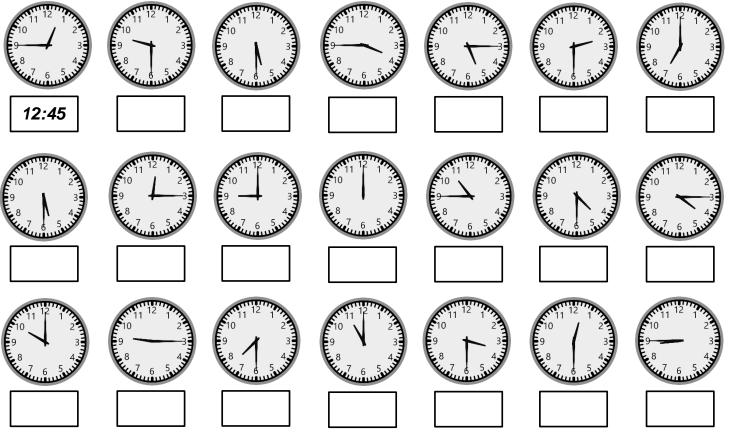




Building the Numeracy of Reading Analog Time

Directions: Write the time shown on each clock to the nearest hour, half or quarter.



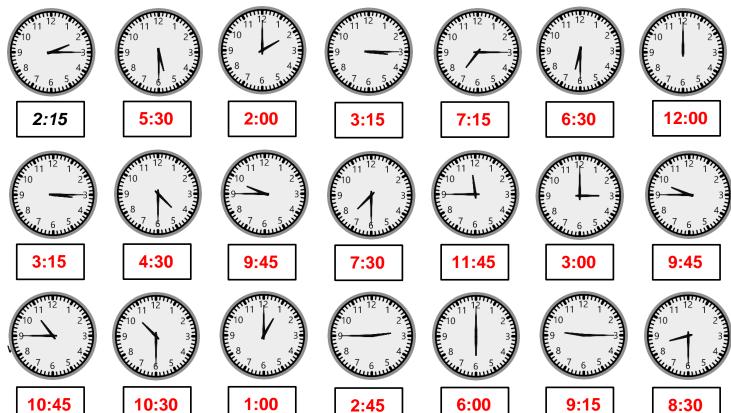


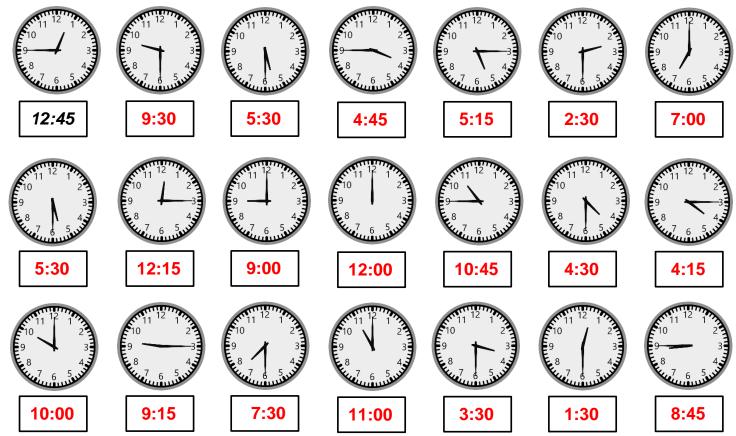
Answer Key

Building the Numeracy of Reading Analog Time

Answer Key

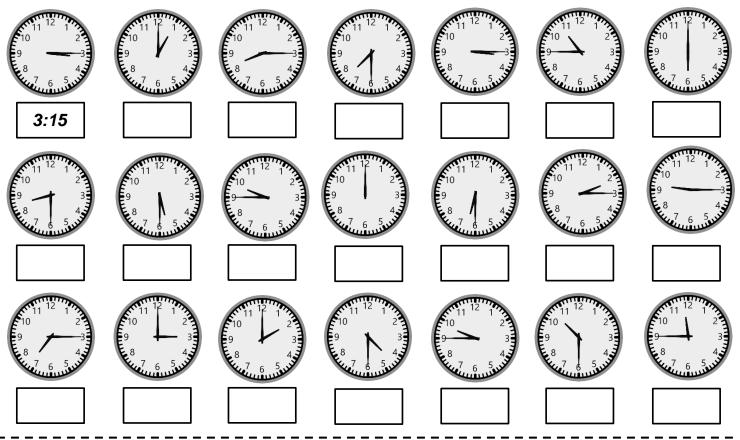
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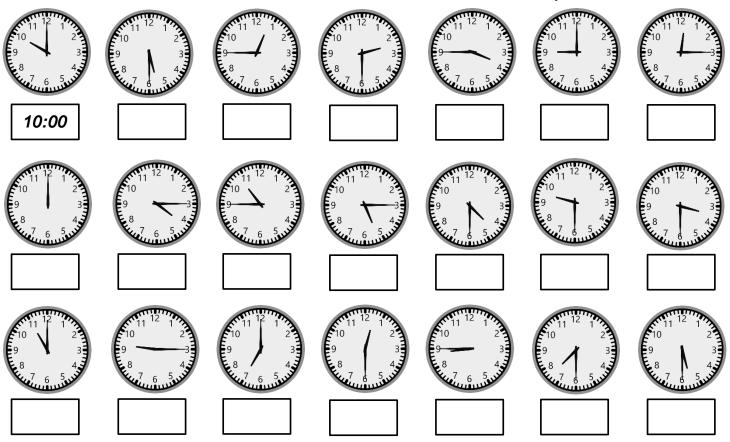




Building the Numeracy of Reading Analog Time

Directions: Write the time shown on each clock to the nearest hour, half or quarter.



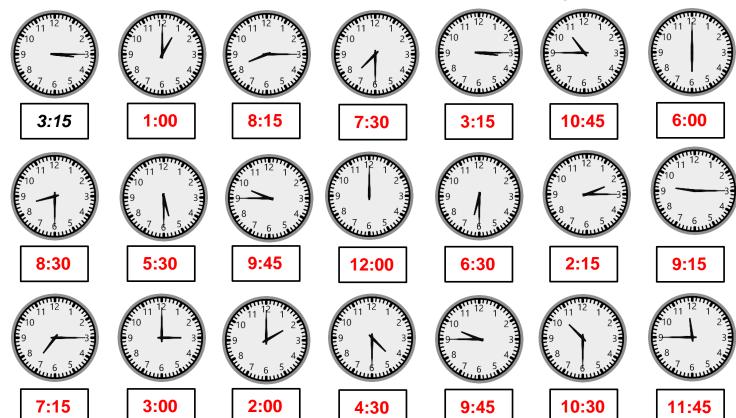


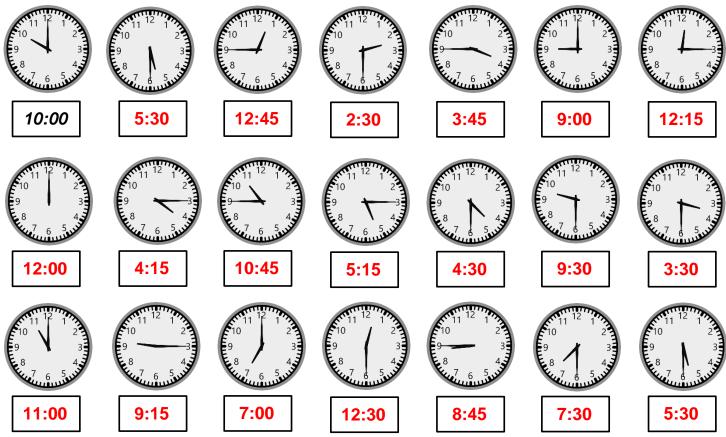
Answer Key

Building the Numeracy of Reading Analog Time

Answer Key

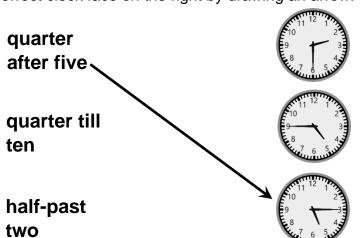
Directions: Write the time shown on each clock to the nearest hour, half or quarter.





<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.



9:30



seven thirty



half-past eight



quarter till four



quarter after four



<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

twelve noon



twelve midnight



five fifteen

nine fifteen

15 minutes

to five



one thirty sharp



half-past twelve



half-past seven



nine fortyfive



quarter to seven



15 minutes to six



quarter to noon

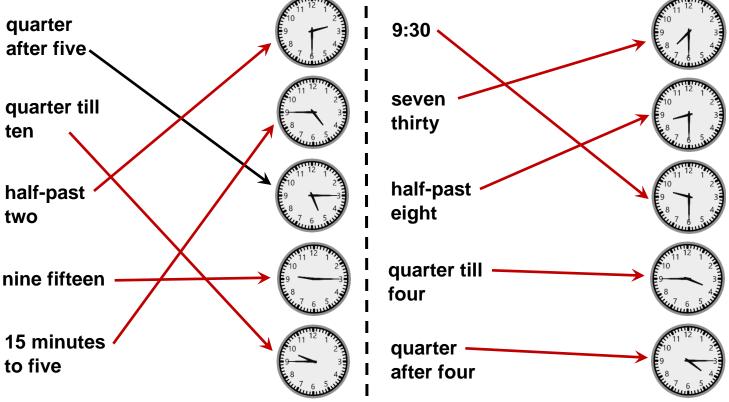


Answer Key

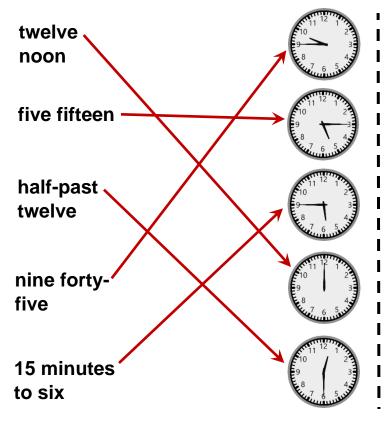
Directions: Match the time on the left with the

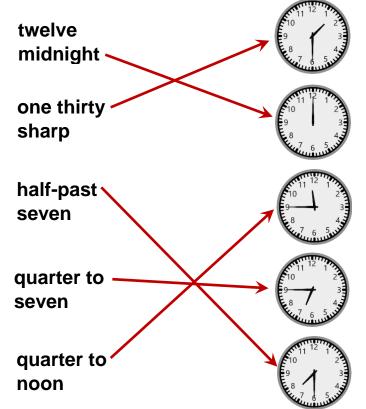
correct clock face on the right by drawing an arrow.

Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.



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<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

quarter to seven



2:45



quarter after ten



eleven thirty



half-past five



half-past four



nine-thirty



quarter till three



15 minutes after noon



quarter after six



<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

<u>Directions:</u> Match the time on the left with thecorrect clock face on the right by drawing an arrow.

twelve sharp



Two-thirty



five thirty



one o'clock sharp



half-past seven



half-past midnight



one fortyfive sharp



quarter after eleven



15 minutes after six



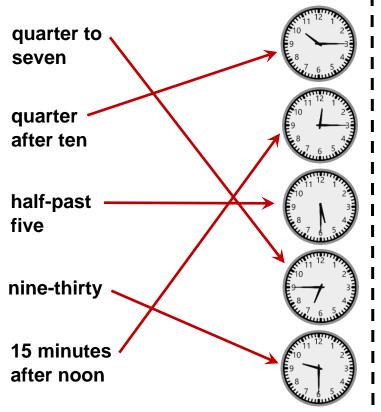
quarter to eleven

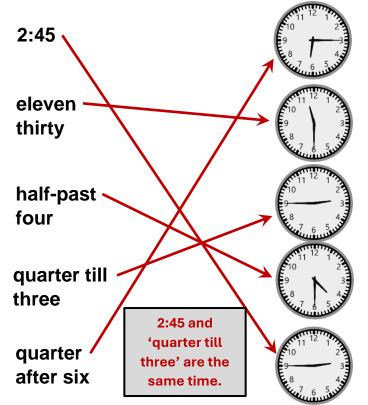


Answer Key

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

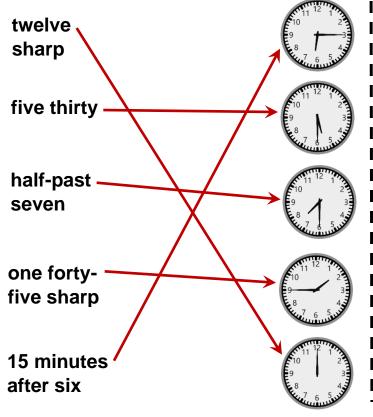
<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

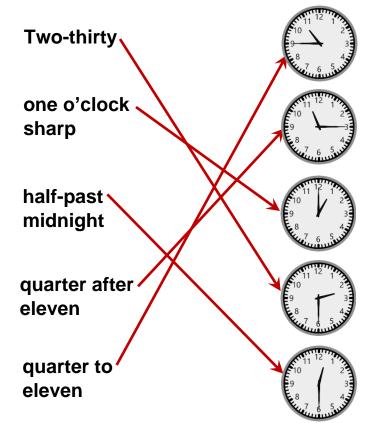




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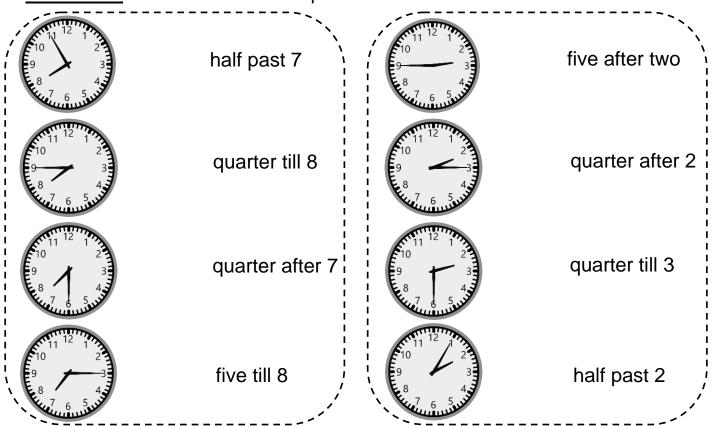




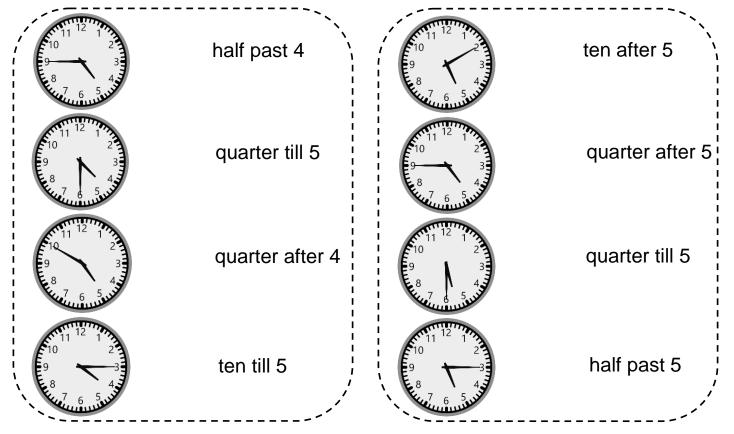
Clocks – Quarters, Half Past and More – V6

Building the Numeracy of Clocks

Directions: Match the time description with the correct clock face.



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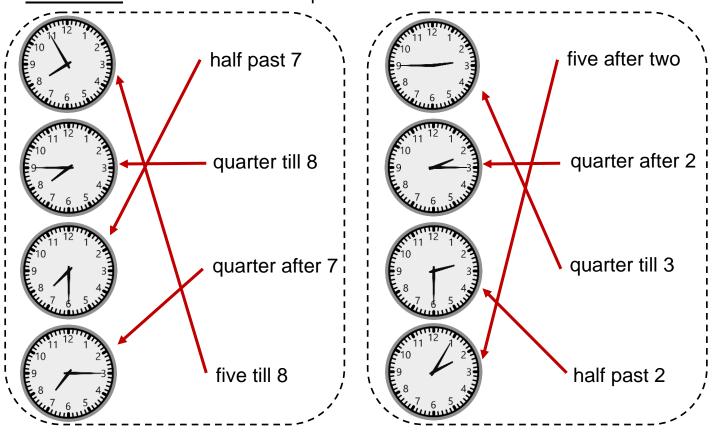
Clocks – Quarters, Half Past and More – V6

Answer Key

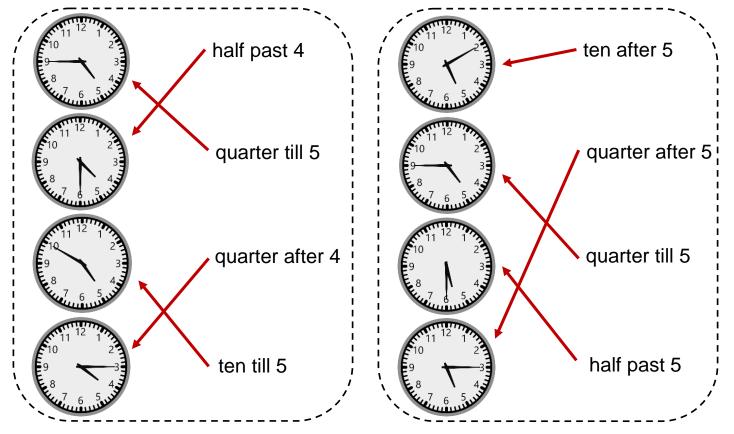
Building the Numeracy of Clocks

Answer Key

<u>Directions:</u> Match the time description with the correct clock face.



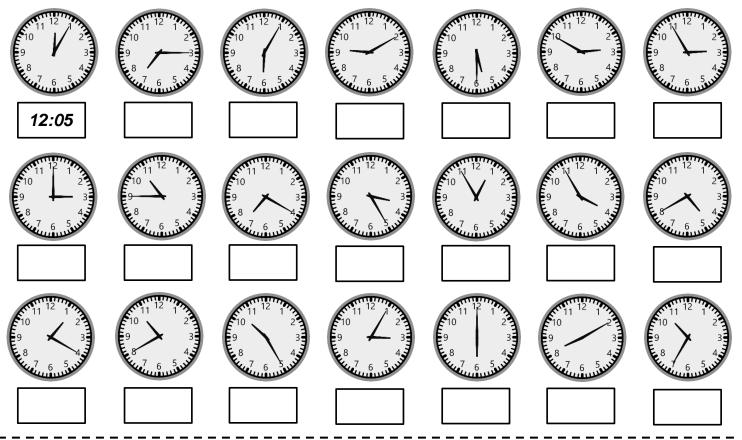
Directions: Match the time description with the correct clock face.

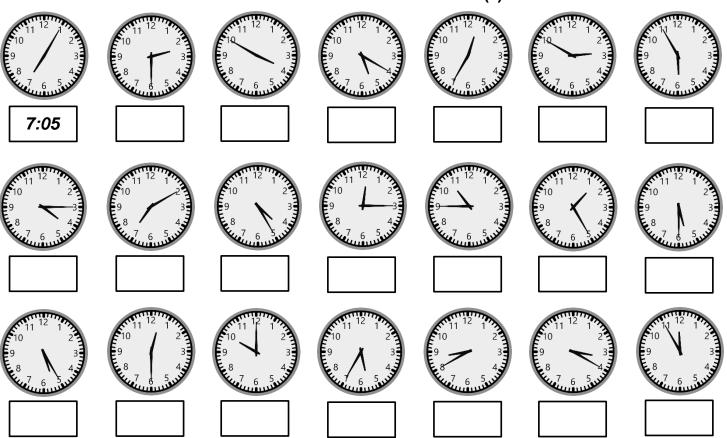


Analog Clocks – Nearest 5 Minutes – V7

Building the Numeracy of Reading Analog Time.

Directions: Write the time shown on each clock to the nearest five (5) minutes.





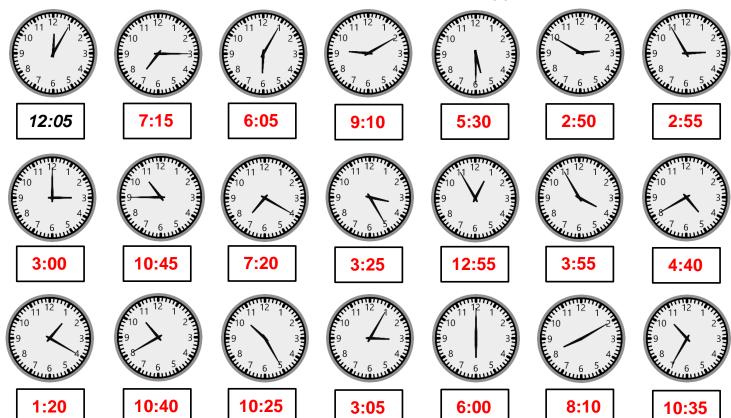
Analog Clocks - Nearest 5 Minutes - V7

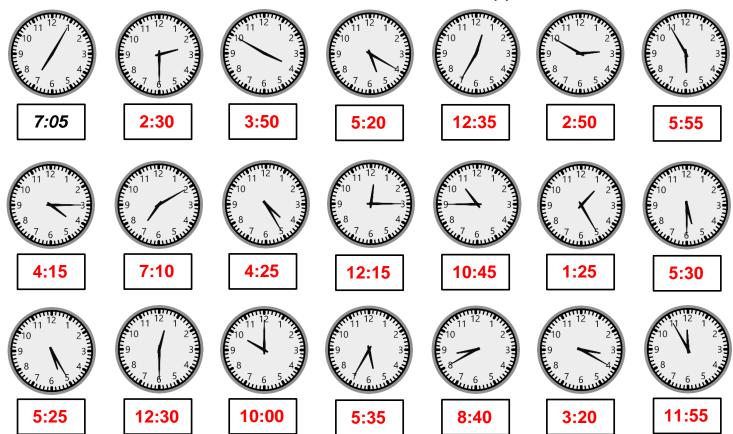
Answer Key

Building the Numeracy of Reading Analog Time.

Answer Key

Directions: Write the time shown on each clock to the nearest five (5) minutes.

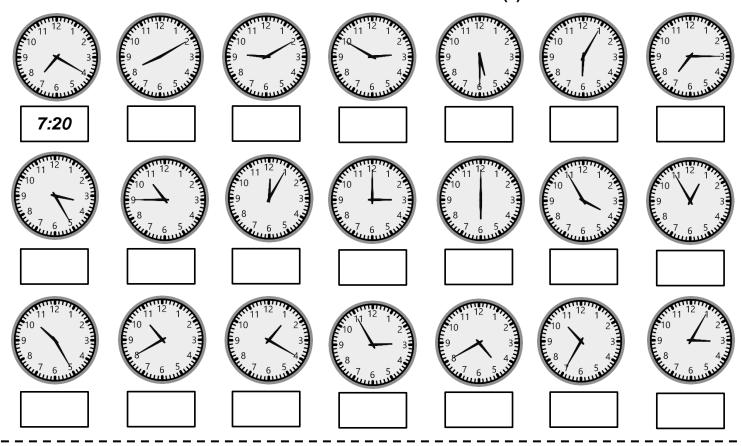


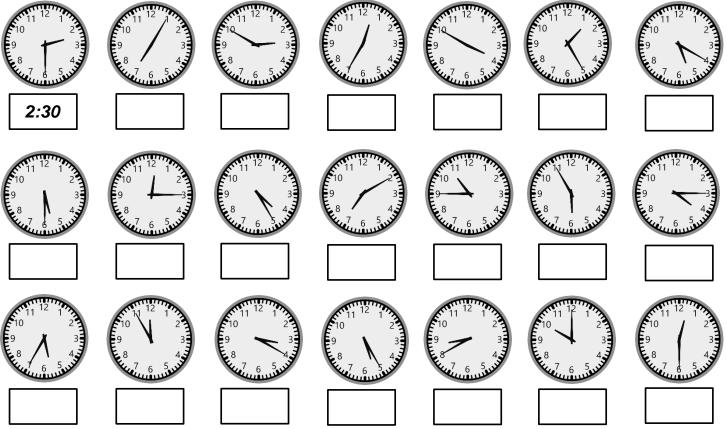


Analog Clocks – Nearest 5 Minutes – V8

Building the Numeracy of Reading Analog Time.

ODirections: Write the time shown on each clock to the nearest five (5) minutes.



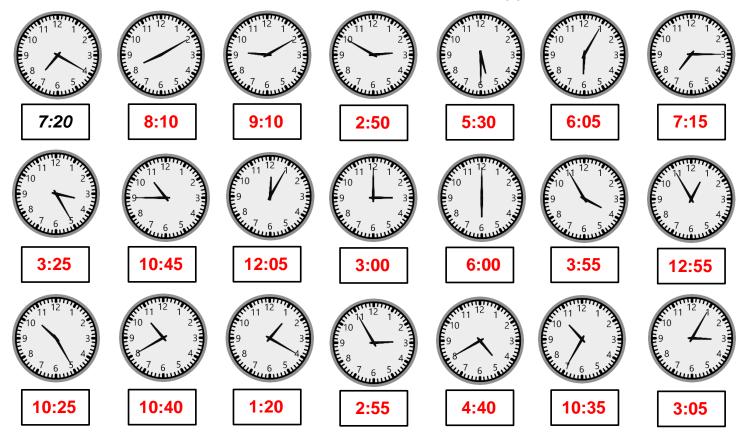


Analog Clocks - Nearest 5 Minutes - V8

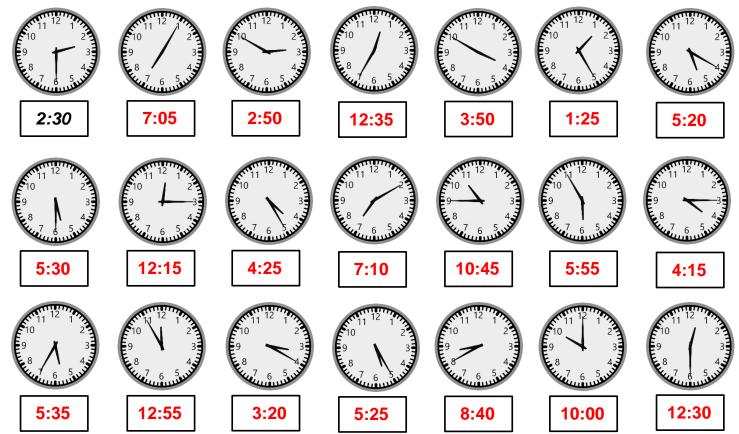
Answer Key

Building the Numeracy of Reading Analog Time.

Answer Key



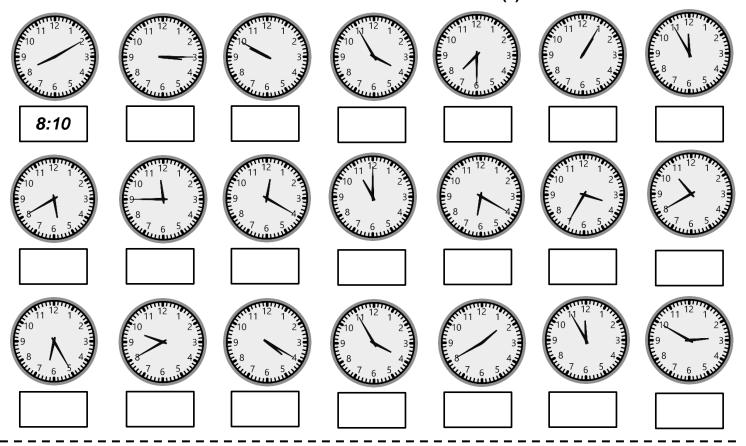
Directions: Write the time shown on each clock to the nearest five (5) minutes.

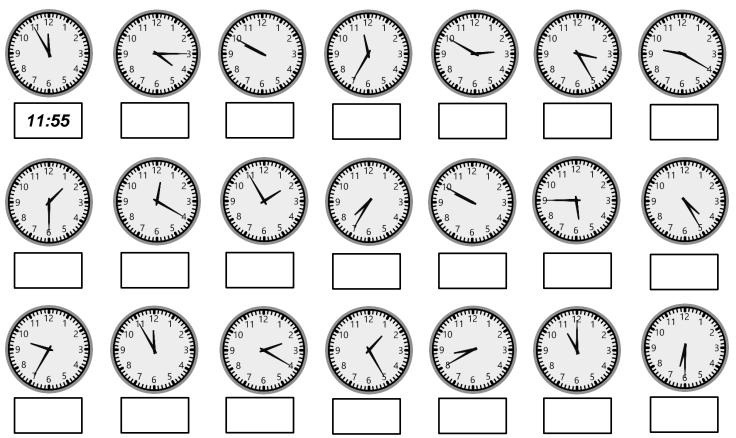


Analog Clocks – Nearest 5 Minutes – V9

Building the Numeracy of Reading Analog Time.

ODirections: Write the time shown on each clock to the nearest five (5) minutes.



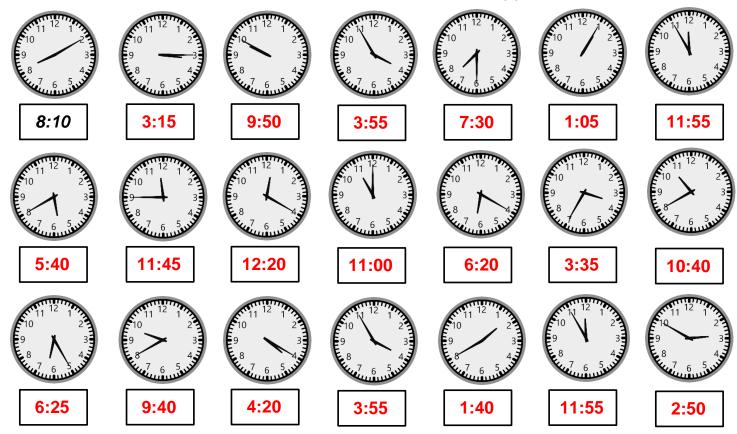


Analog Clocks - Nearest 5 Minutes - V9

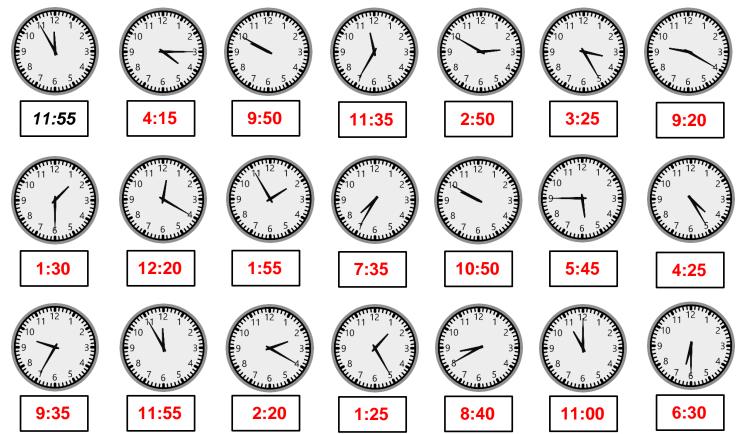
Answer Key

Building the Numeracy of Reading Analog Time.

Answer Key



Directions: Write the time shown on each clock to the nearest five (5) minutes.



<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

five minutes after five



5 minutes to three



ten to ten



10 after eleven



15 to 5



half-past eight



5 minutes to 1



twenty to nine



25 minutes after one



quarter after four



<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

twelvetwenty



twelve midnight



six thirtyfive



one-thirty sharp



half-past twelve



half-past seven



20 after 7



15 to seven



20 minutes to six



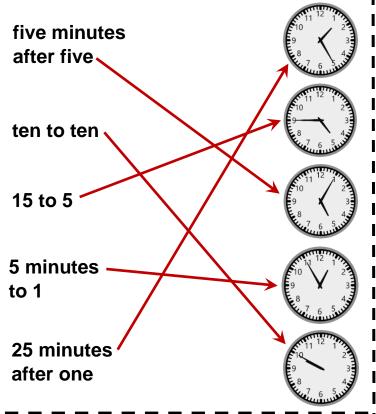
10 before 5

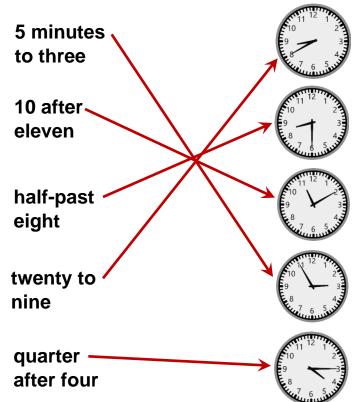


Answer Key

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

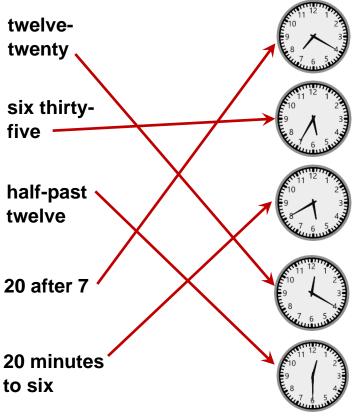
<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

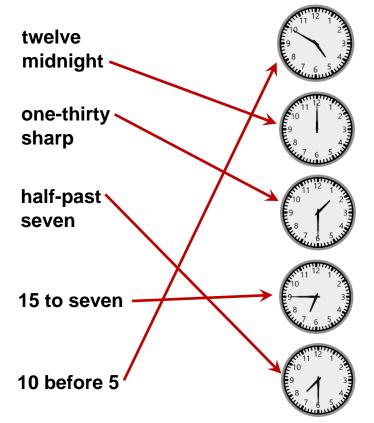




<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.





Using 'Clock Talk' - V11

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

20 minutes after five



ten minutes to eleven



twentyfive to ten



twenty-five after two



15 after 5



quarter past 9



five minutes to four



twenty to three



25 minutes till one



quarter after four



<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

<u>Directions:</u> Match the time on the left with the correct clock face on the right by drawing an arrow.

twelvenoon



twelve midnight



eleven-forty



nine-thirty



half-past one



30 minutes after seven



20 after 7



10 to seven



20 minutes to six



5 to 5



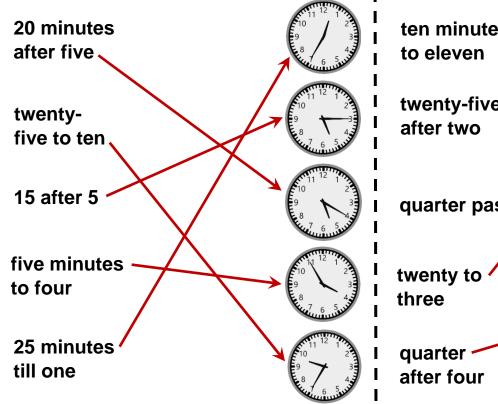
Using 'Clock Talk' – V11

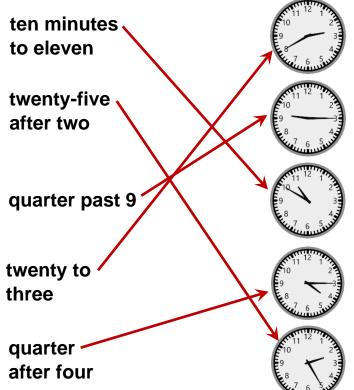
Answer Key

Directions: Match the time on the left with the

correct clock face on the right by drawing an arrow.

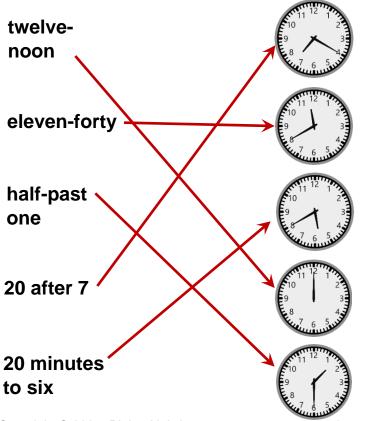
Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.

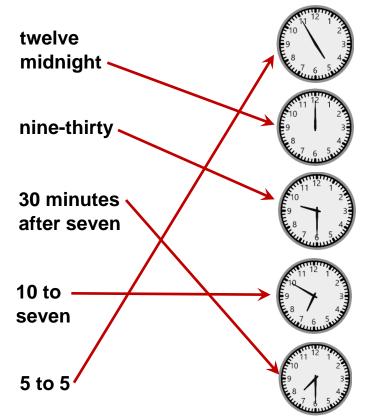




Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.

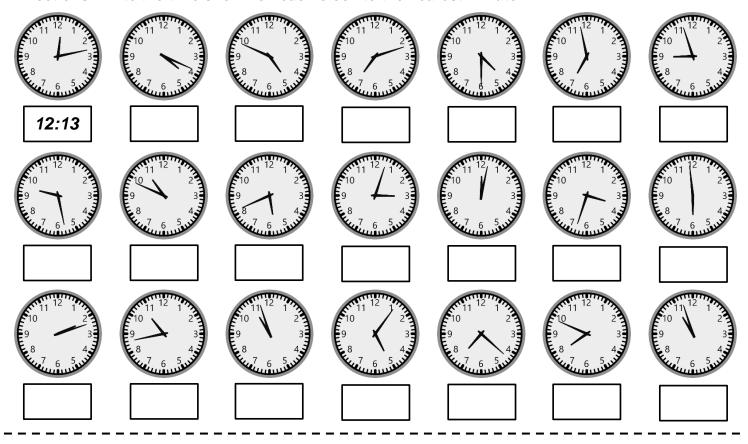
Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.

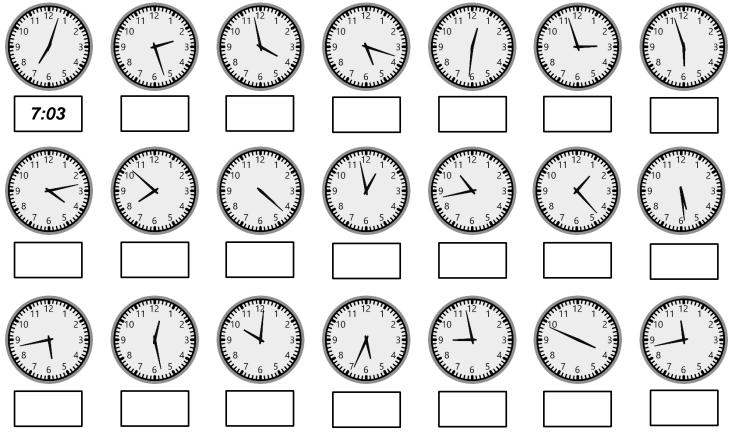




Building the Numeracy of Reading Analog Time

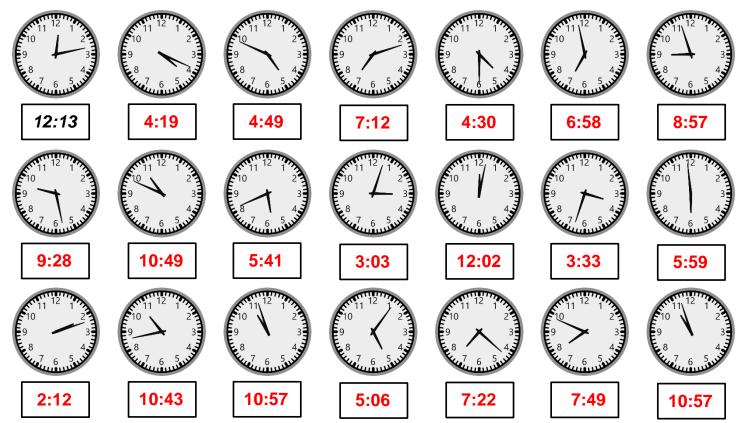
Directions: Write the time shown on each clock to the nearest minute.

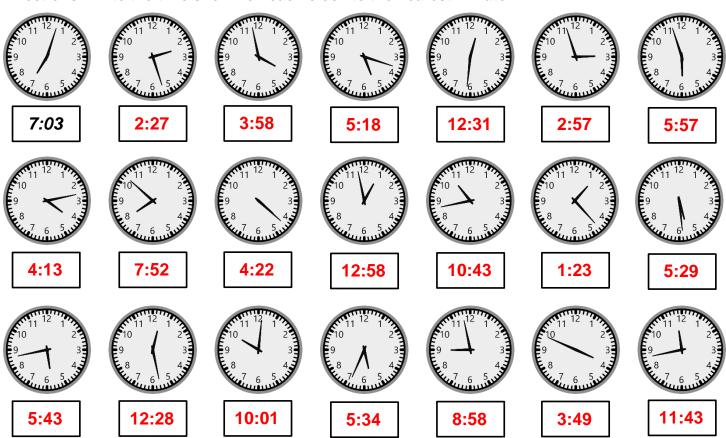




Answer Key Building the Numeracy of Reading Analog Time Answer Key

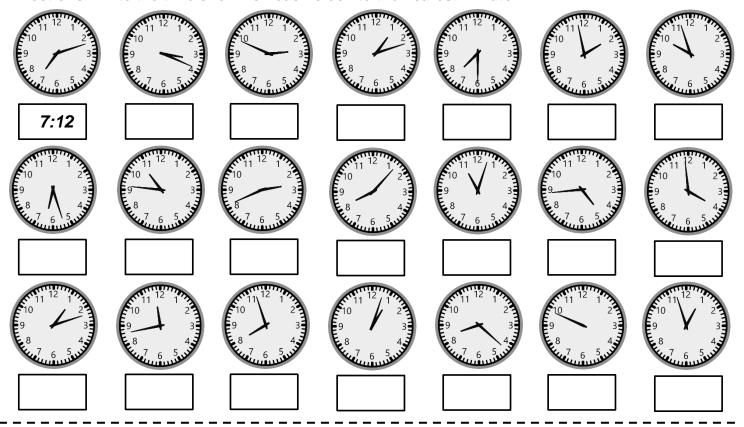
Directions: Write the time shown on each clock to the nearest minute.

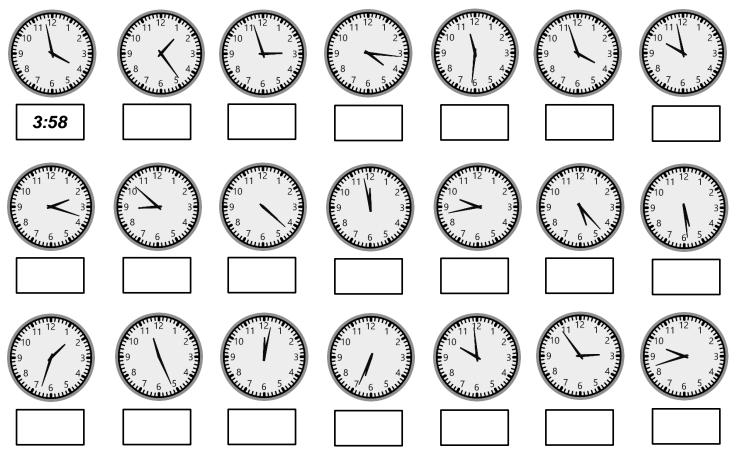




Building the Numeracy of Reading Analog Time

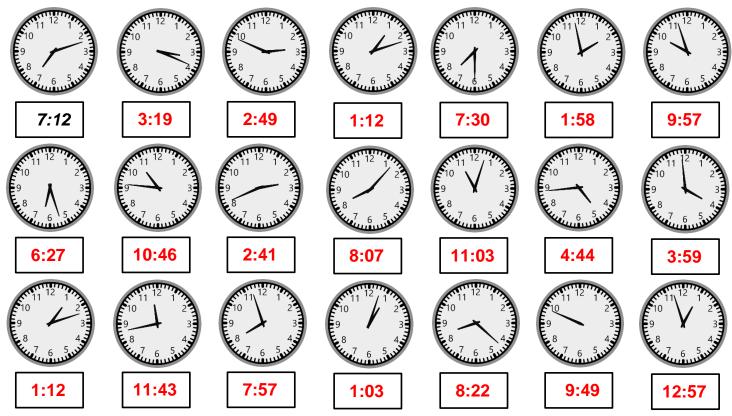
Directions: Write the time shown on each clock to the nearest minute.



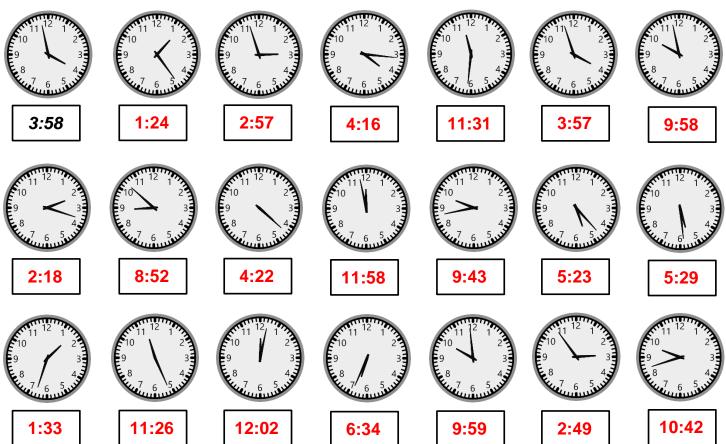


Answer Key Building the Numeracy of Reading Analog Time Answer Key

Directions: Write the time shown on each clock to the nearest minute.



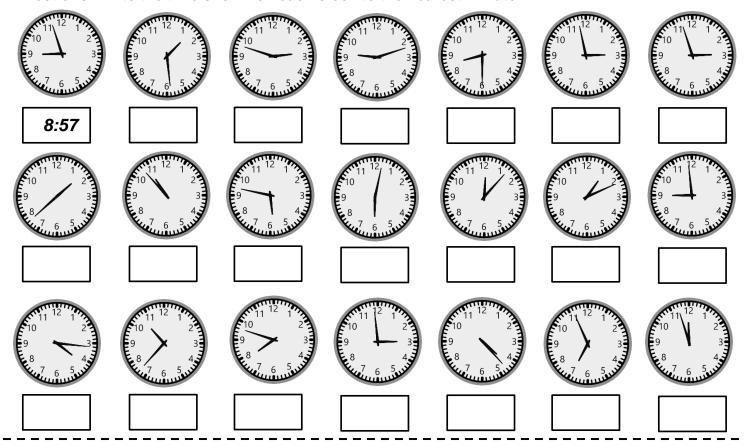
Directions: Write the time shown on each clock to the nearest minute.

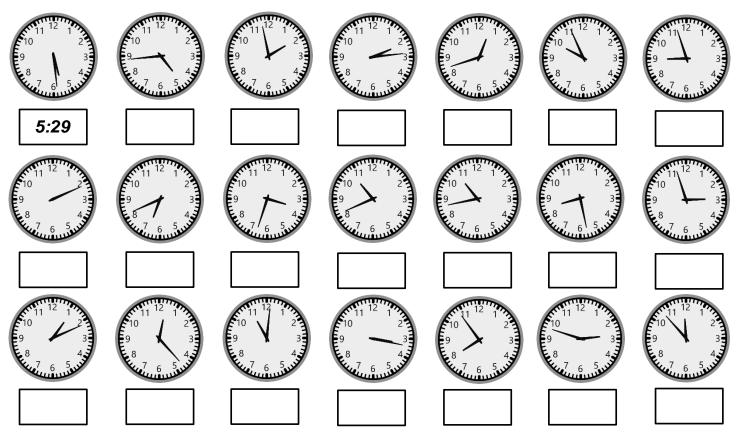


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Building the Numeracy of Reading Analog Time

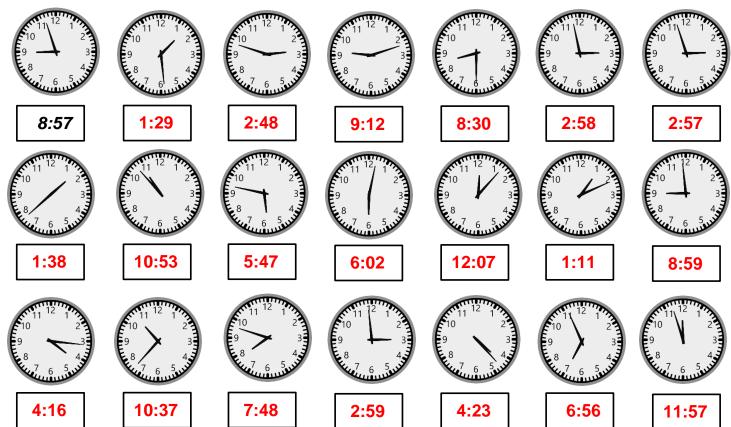
Directions: Write the time shown on each clock to the nearest minute.

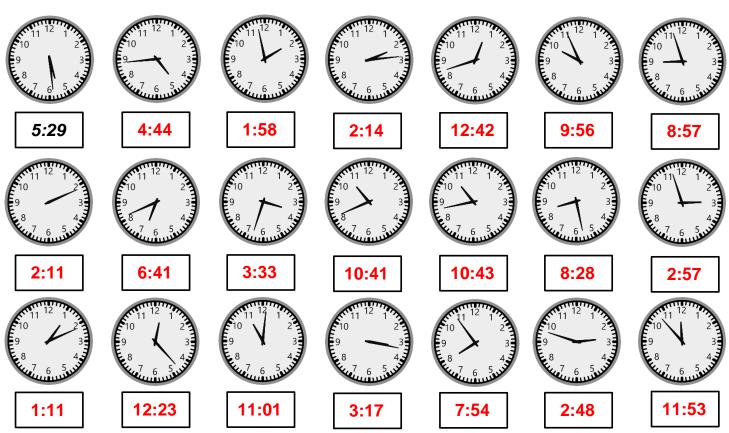




Answer Key Building the Numeracy of Reading Analog Time Answer Key

Directions: Write the time shown on each clock to the nearest minute.





Using 'Clock Talk' – V15

Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.

3 minutes after two

seven to ten

12 after 5

17 minutes to 3

21 minutes after four



Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.

13 minutes to three

7 after eleven

half-past four

sixteen to nine

quarter to three











Directions: Match the time on the left with the

twelveeleven

two twentytwo

half-past twelve

15 after 7

23 minutes to 4











Directions: Match the time on the left with the correct clock face on the right by drawing an arrow. I correct clock face on the right by drawing an arrow.

> twelve midnight

five-thirty sharp

quarter after 5

2 to seven

13 before 1









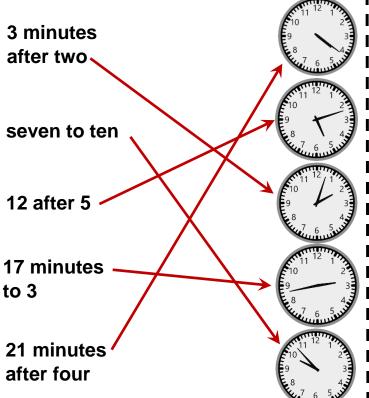


Answer Key

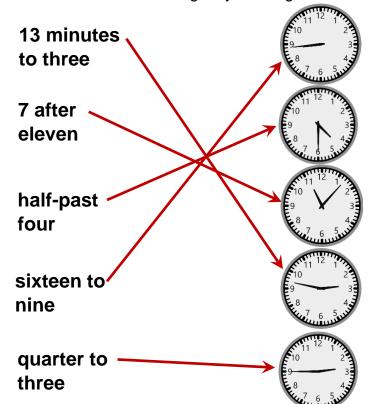
Using 'Clock Talk' – V15

Answer Key

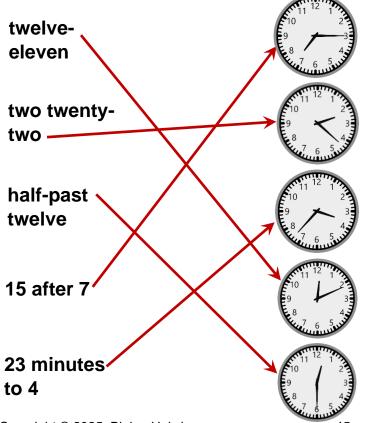
Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.



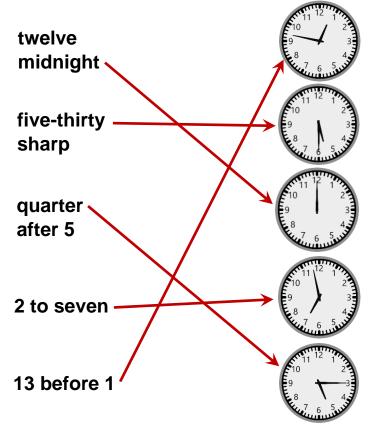
Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.



Directions: Match the time on the left with the correct clock face on the right by drawing an arrow. I correct clock face on the right by drawing an arrow.



| Directions: Match the time on the left with the



Using 'Clock Talk' – V16

Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.

12 minutes after 1

3 to ten

18 after 6

11 minutes to 6

28 minutes after four



19 minutes

twelve after 9

to 9

half-past 5

5 to nine

quarter to seven











Directions: Match the time on the left with the correct clock face on the right by drawing an arrow. I correct clock face on the right by drawing an arrow.

twelvefifteen

eight twenty-two

15 minutes to twelve

15 after 2

2 minutes to 7











Directions: Match the time on the left with the

<u>Directions:</u> Match the time on the left with the

correct clock face on the right by drawing an arrow.

twelve noon

five o'clock sharp

3 after 5

8 to seven

21 before 1











Answer Key

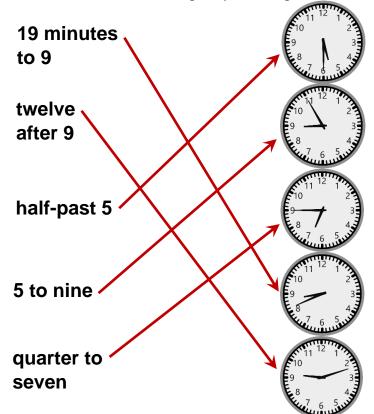
Using 'Clock Talk' – V16

Answer Key

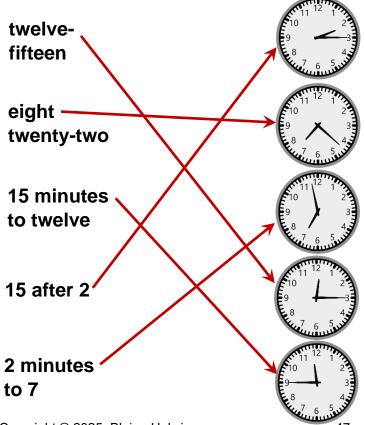
Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.

12 minutes after 1 3 to ten 18 after 6 11 minutes to 6 28 minutes after four

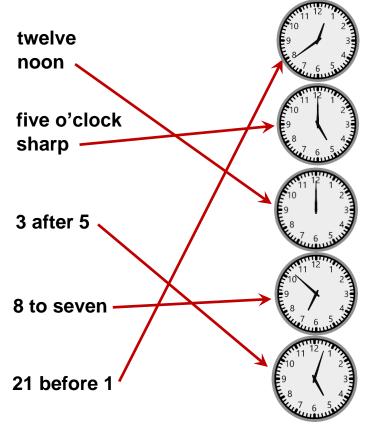
Directions: Match the time on the left with the correct clock face on the right by drawing an arrow.



Directions: Match the time on the left with the correct clock face on the right by drawing an arrow. I correct clock face on the right by drawing an arrow.

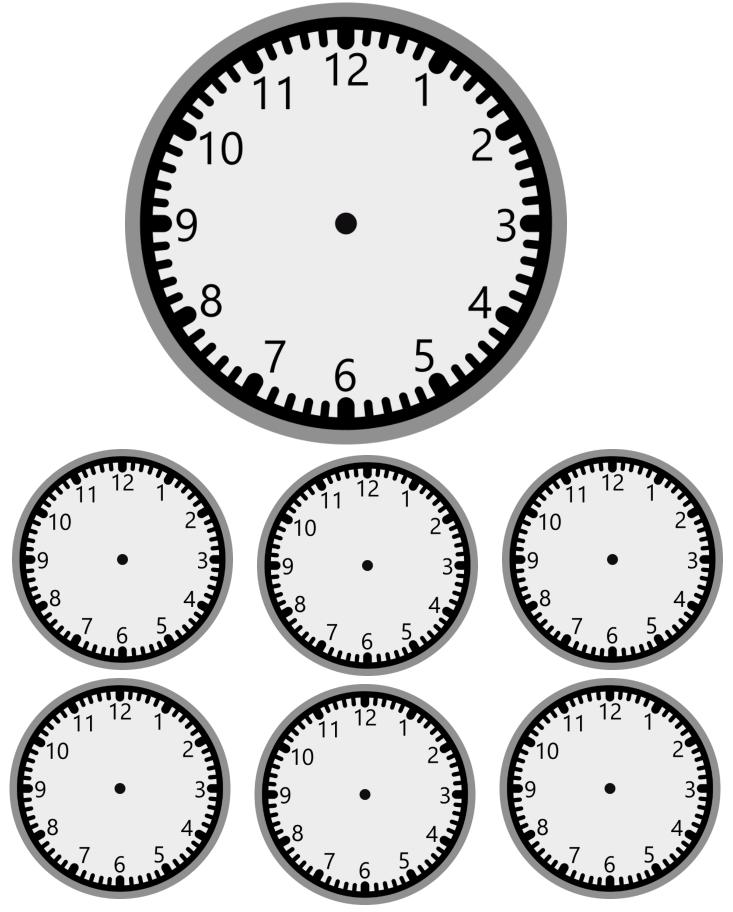


Directions: Match the time on the left with the



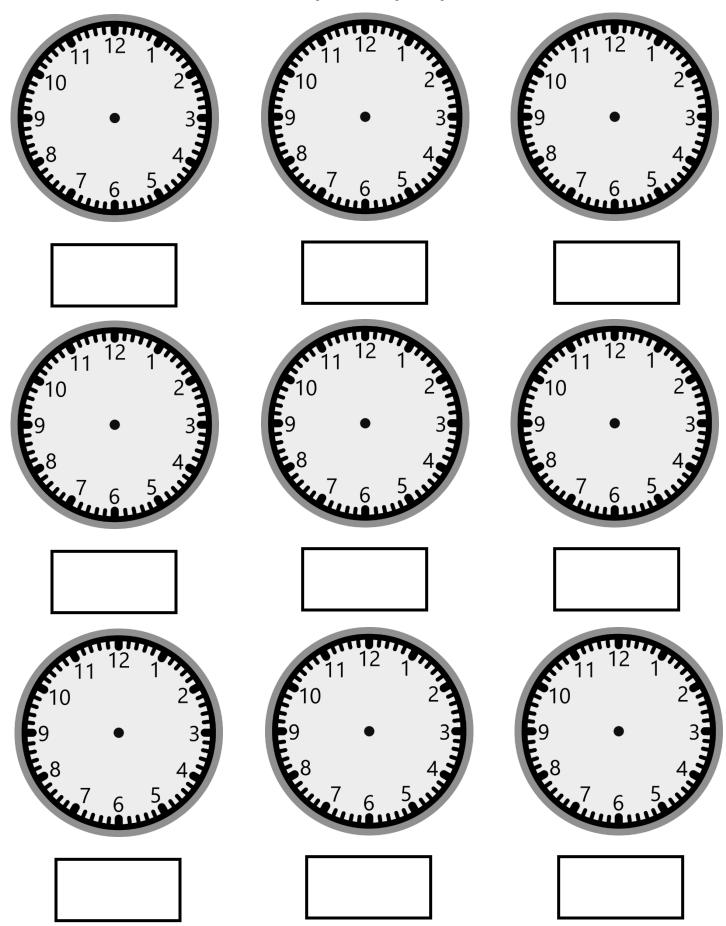
Analog Clocks – Demonstration Tool – V17

Understanding and Reading Analog Time



Analog Clocks - No Minute or Hour Hands - V18

Understanding and Reading Analog Time

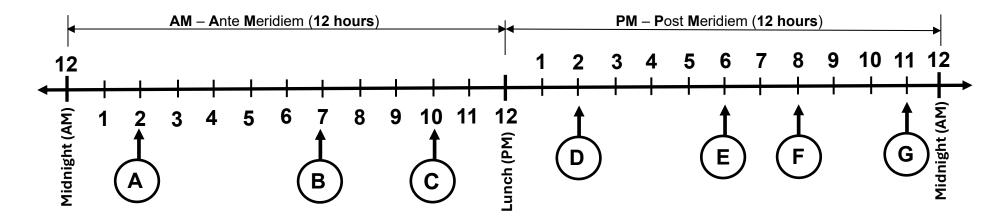


Section 3

A Day of Time

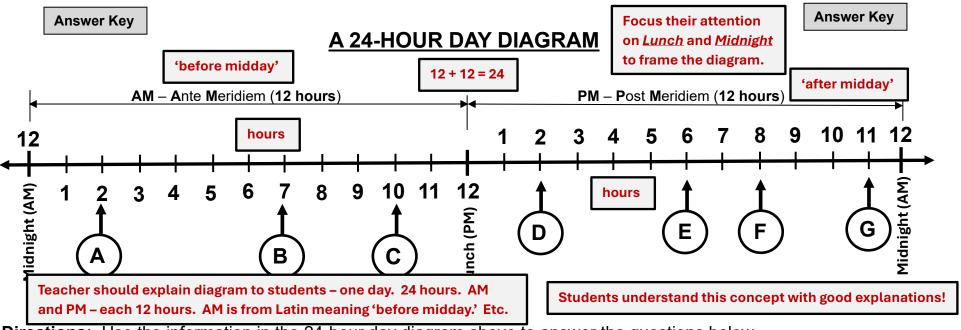
Student Practice Resource

A 24-HOUR DAY DIAGRAM



<u>Directions</u>: Use the information in the 24-hour day diagram above to answer the questions below.

- **1.)** There are **two** 12-hour periods in one day. True **or** False (Circle your answer).
- 2.) There are 24 hours in one day. True or False (Circle your answer).
- 3.) Lunch-time each day is at ______. 12 AM or 12 PM (Circle your answer).
- **4.)** At Point **B,** it is 7 AM. You are ______. going to recess. **or** eating breakfast. (Circle your answer).
- **5.)** At Point **A,** it is 2 AM. You are ______. sleeping in your bed. **or** at school. (Circle your answer).
- **6.)** At Point **D**, it is 2 PM. You are ______. sleeping in your bed. **or** at school. (Circle your answer).



Directions: Use the information in the 24-hour day diagram above to answer the questions below.

- **1.)** There are **two** 12-hour periods in one day.
- True or False

(Circle your answer).

- **2.)** There are 24 hours in one day.

(Circle your answer).

- **3.)** Lunch-time each day is at . . .
- 12 AM

(Circle your answer).

completed with the teacher and students via Guided Practice. The teacher should explain the diagram, fully, so students understand it. The students can work V3 and V4, independently.

This entire exercise should be

- **4.)** At Point **B,** it is 7 AM. You are



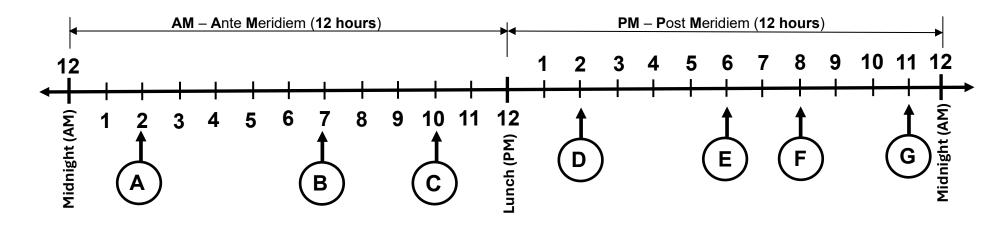
(Circle your answer).

- **5.)** At Point **A**, it is 2 AM. You are
- sleeping in your beg
- or at school.
- (Circle your answer).

- **6.)** At Point **D,** it is 2 PM, you are
- sleeping in your bed. or (at school



A 24-HOUR DAY DIAGRAM



<u>Directions</u>: Use the information in the 24-hour day diagram above to answer the questions below.

1.) There are 24 hours in one day.

True **or** False

(Circle your answer).

2.) There are **two** 12-hour periods in one day.

True or False

(Circle your answer).

3.) Midnight each day is at _____. 12 AM **or** 12 PM

(Circle your answer).

4.) At Point **B**, it is 7 AM. You are

playing baseball. **or**

going to school.

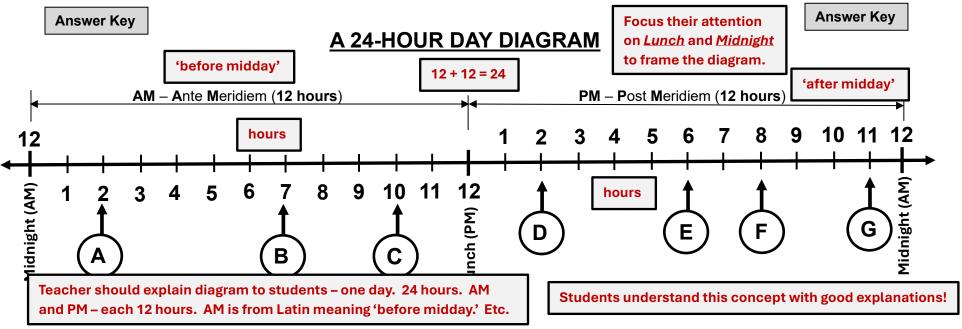
(Circle your answer).

5.) At Point **E**, it is 6 PM. You are .

sleeping in your bed. **or** eating dinner.

(Circle your answer).

6.) At Point **G**, it is 11 PM. You are . sleeping in your bed. **or** at school.



Directions: Use the information in the 24-hour day diagram above to answer the questions below.

1.) There are 24 hours in one day.

br False

(Circle your answer).

2.) There are **two** 12-hour periods in one day.

True or False

(Circle your answer).

3.) Midnight each day is at ...

(12 AM) or 12 PM

(Circle your answer).

This entire exercise should be completed with the teacher and students via Guided Practice. The teacher should explain the diagram, fully, so students understand it. The students can work V3 and V4, independently.

4.) At Point **B**, it is 7 AM. You are

playing baseball. or going to school

(Circle your answer).

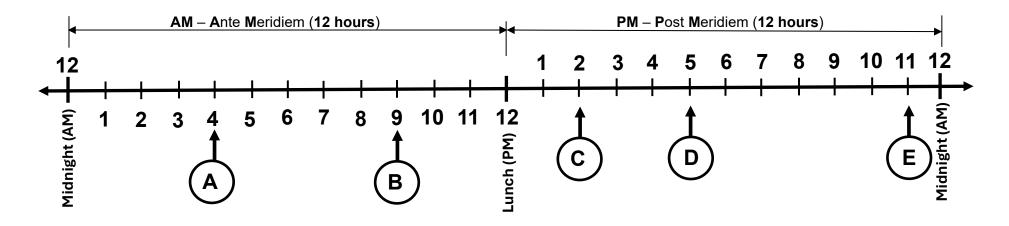
5.) At Point **E,** it is 6 PM. You are

sleeping in your bed.

or eating dinner.

(Circle your answer).

A 24-HOUR DAY DIAGRAM



Directions: Use the information in the 24-hour day diagram above to answer the questions below.

1.) There are <u>12 hours</u> in one day.

True **or** False

(Circle your answer).

2.) There are two 12-hour periods in one day.

True **or** False

(Circle your answer).

3.) AM means **A**nte **M**eridiem.

True **or** False

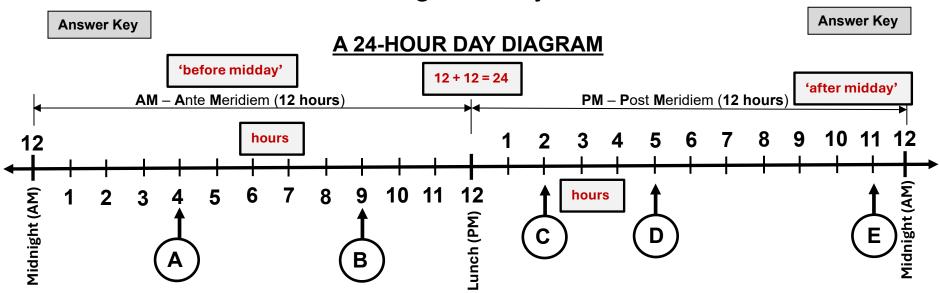
(Circle your answer).

4.) At Point **B**, it is 9 AM. You are

at school. **or** sleeping in your bed.

- **5.)** At Point **D**, it is 5 PM. You are
- sleeping in your bed. **or** doing homework.
- (Circle your answer).

- **6.)** At Point **E,** it is 11 PM. You are
- sleeping in your bed. **or** at school.
- (Circle your answer).



Directions: Use the information in the 24-hour day diagram above to answer the questions below.

1.) There are 12 hours in one day.

- True or Fals
- (Circle your answer).

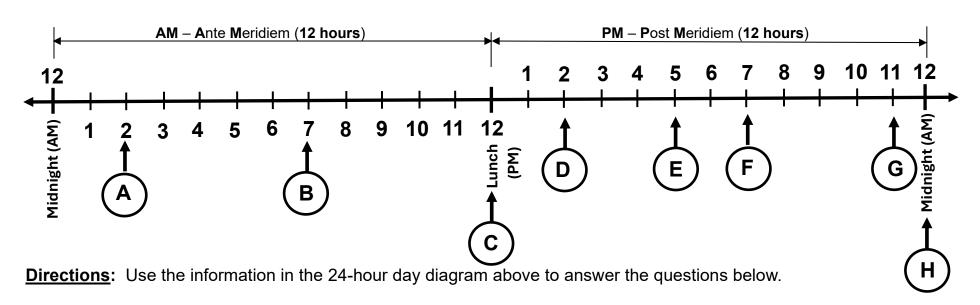
- 2.) There are two 12-hour periods in one day.
- (Circle your answer).
- This exercise can be done with independent practice, but the teacher closely monitors.

- 3.) AM means Ante Meridiem.
- True **or** False
- (Circle your answer).
- **4.)** At Point **B,** it is 9 AM. You are
- at school.
- sleeping in your bed.
- (Circle your answer).

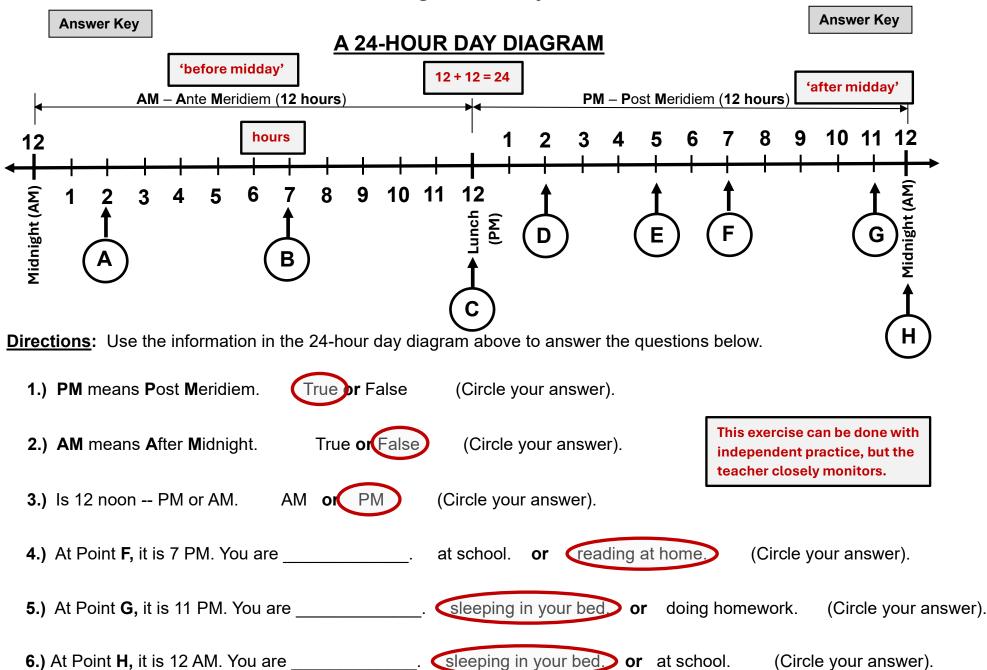
- **5.)** At Point **D**, it is 5 PM. You are
- sleeping in your bed. **or** doing homework.
- (Circle your answer).

- (Circle your answer).

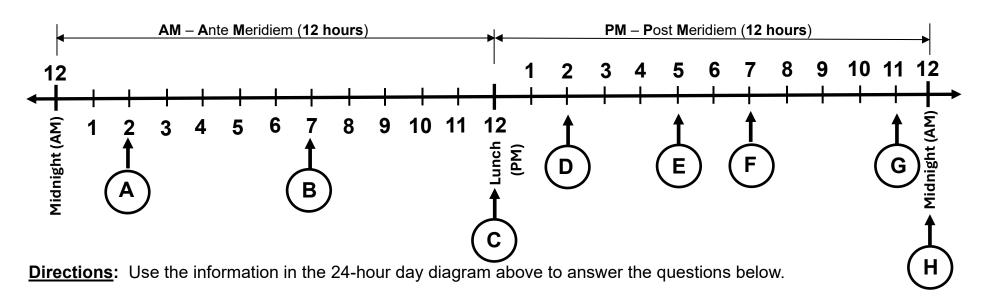
A 24-HOUR DAY DIAGRAM



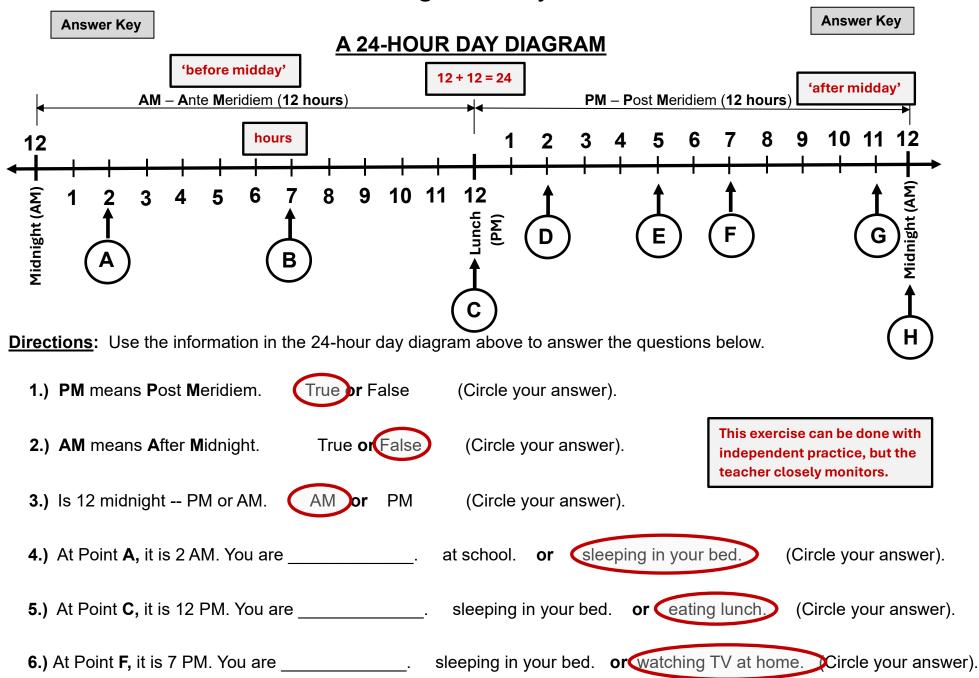
- **1.) PM** means **P**ost **M**eridiem. True **or** False (Circle your answer).
- **2.) AM** means **A**fter **M**idnight. True **or** False (Circle your answer).
- **3.)** Is 12 noon -- PM or AM. AM **or** PM (Circle your answer).
- **4.)** At Point **F,** it is 7 PM. You are ______. at school. **or** reading at home. (Circle your answer).
- **5.)** At Point **G**, it is 11 PM. You are ______. sleeping in your bed. **or** doing homework. (Circle your answer).
- **6.)** At Point **H,** it is 12 AM. You are ______. sleeping in your bed. **or** at school. (Circle your answer).



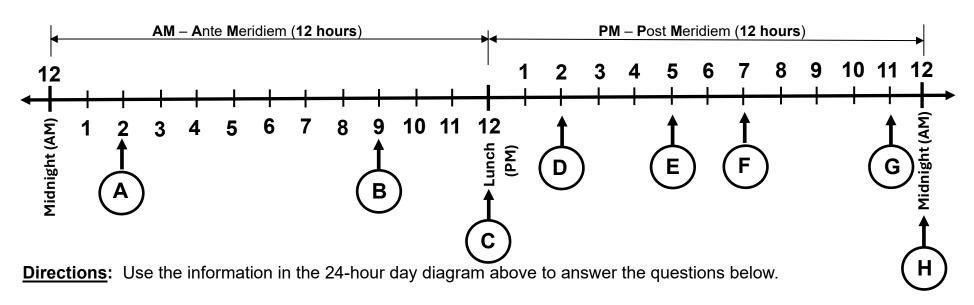
A 24-HOUR DAY DIAGRAM



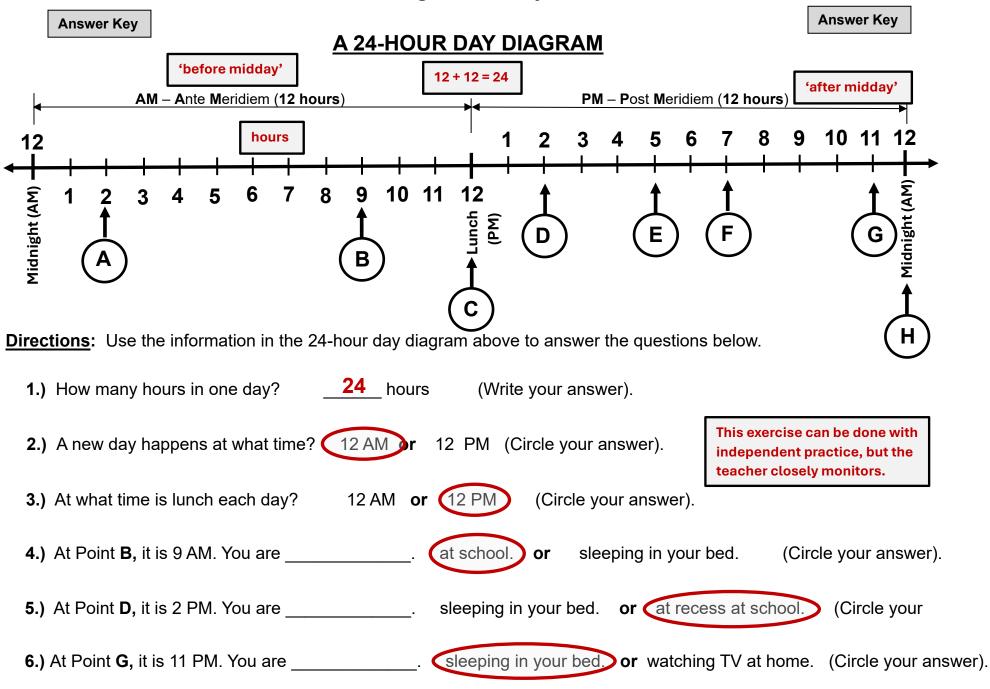
- **1.) PM** means **P**ost **M**eridiem. True **or** False (Circle your answer).
- 2.) AM means After Midnight. True or False (Circle your answer).
- **3.)** Is 12 midnight -- PM or AM. AM **or** PM (Circle your answer).
- **4.)** At Point **A,** it is 2 AM. You are ______. at school. **or** sleeping in your bed. (Circle your answer).
- **5.)** At Point **C**, it is 12 PM. You are ______. sleeping in your bed. **or** eating lunch. (Circle your answer).
- **6.)** At Point **F**, it is 7 PM. You are ______. sleeping in your bed. **or** watching TV at home. (Circle your answer).



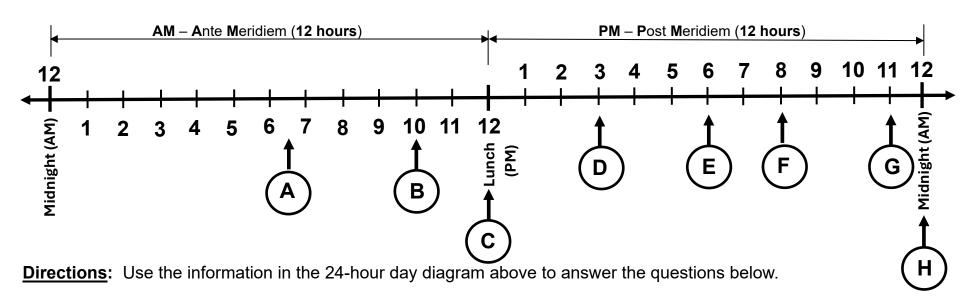
A 24-HOUR DAY DIAGRAM



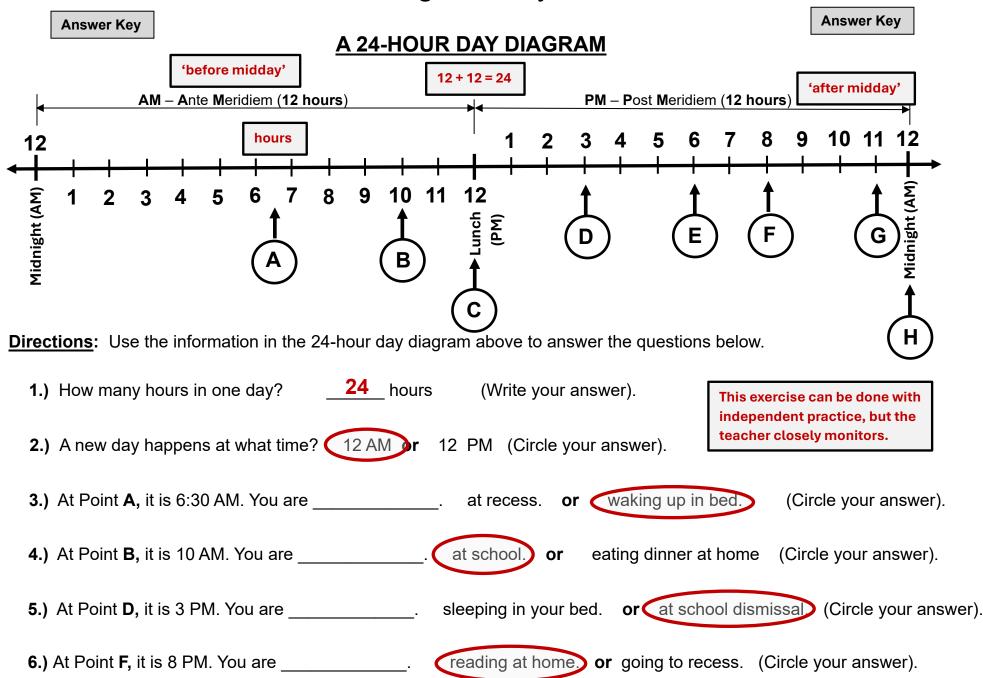
- **1.)** How many hours in one day? _____ hours (Write your answer).
- **2.)** A new day happens at what time? 12 AM **or** 12 PM (Circle your answer).
- **3.)** At what time is lunch each day? 12 AM **or** 12 PM (Circle your answer).
- **4.)** At Point **B,** it is 9 AM. You are ______. at school. **or** sleeping in your bed. (Circle your answer).
- **5.)** At Point **D**, it is 2 PM. You are . sleeping in your bed. **or** at recess at school. (Circle your
- **6.)** At Point **G**, it is 11 PM. You are ______. sleeping in your bed. **or** watching TV at home. (Circle your answer).



A 24-HOUR DAY DIAGRAM



- **1.)** How many hours in one day? _____ hours (Write your answer).
- 2.) A new day happens at what time? 12 AM or 12 PM (Circle your answer).
- **3.)** At Point **A,** it is 6:30 AM. You are ______. at recess. **or** waking up in bed. (Circle your answer).
- **4.)** At Point **B,** it is 10 AM. You are ______. at school. **or** eating dinner at home (Circle your answer).
- **5.)** At Point **D**, it is 3 PM. You are ______. sleeping in your bed. **or** at school dismissal. (Circle your answer).
- **6.)** At Point **F,** it is 8 PM. You are ______. reading at home. **or** going to recess. (Circle your answer).



Building the Numeracy of Time

<u>Directions:</u> Ring the correct time that matches the description.

Eating breakfast at school	7:30 AM \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Starting my math class.	10:30 AM \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
Sound asleep in my bed.	4:00 AM 4:00 PM	Completing my homework	4:30 AM 4:30 PM	
Eating lunch at school - noon.	12:00 AM 12:00 PM	Watching TV with my friends	5:00 AM 5:00 PM	
Start of a new day midnight.	12:00 AM 12:00 PM	Going to bed for the night.	8:00 AM 8:00 PM	

, , , , , , ,	Riding the bus to school.	7:34 AM \ / / 7:34 PM	Sleeping in my bed at night.	2:35 AM \\ 2:35 PM \\	
 	Riding the bus home from school.	4:05 AM 4:05 PM	Eating lunch with my class.	11:34 AM 11:34 PM	
 	At recess – playing tag with my friends.	10:31 AM 10:31 PM	Playing soccer after school	4:45 AM 4:45 PM	
 	Eating dinner with my family.	5:10 AM 5:10 PM	Studying for my spelling test with my mom's help.	6:55 AM 6:55 PM	

Answer Key

Building the Numeracy of Time

Answer Key

<u>Directions:</u> Ring the correct time that matches the description.

Eating breakfast at school	7:30 AM 7:30 PM	Starting my math class.	10:30 AM \ 10:30 PM
Sound asleep in my bed.	4:00 AM 4:00 PM	Completing my homework	4:30 AM 4:30 PM
Eating lunch at school - noon.	12:00 AM 12:00 PM	Watching TV with my friends	5:0 <u>0</u> AM 5:00 PM
Start of a new day - midnight.	12:00 AM 12:00 PM	Going to bed for the night.	8:00 AM 8:00 PM

,	Riding the bus to school.	7:34 AM 7:34 PM	Sleeping in my bed at night.	2:35 AM 2:35 PM
	Riding the bus home from school.	4:0 <u>5</u> AM 4:05 PM	Eating lunch with my class.	11:34 AM 11:34 PM
	At recess – playing tag with my friends.	10:31 AM 10:31 PM	Playing soccer after school	4:45 AM 4:45 PM
	Eating dinner with my family.	5:1 <u>0</u> AM 5:10 PM	Studying for my spelling test with my mom's help.	6:55 AM 6:55 PM

Building the Numeracy of Time

<u>Directions:</u> Ring the correct time that matches the description.

,		,	
Walking to school in the morning	7:30 AM \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Going to recess with my classmates.	10:30 AM \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Sound asleep in my bed.	4:00 AM 4:00 PM	Completing my nightly homework	5:30 AM 5:30 PM
School dismissal	3:00 AM 3:00 PM	Eating dinner with my family.	5:00 AM 5:00 PM
Start of a new day midnight.	12:00 AM 12:00 PM	Going to bed for the night.	8:30 AM 8:30 PM

	,		/	
///////////////////////////////////////	Riding the bus after school.	3:15 AM \ / / 3:15 PM	Sleeping in my bed at night.	1:52 AM \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
 	Riding the bus to school.	7:05 AM 7:05 PM	Eating lunch with my class.	12:15 AM 12:15 PM
	At recess – playing tag with my friends.	10:47 AM 10:47 PM	Playing baseball after school	5:05 AM 5:05 PM
 	Doing my home- work at my house.	5:10 AM 5:10 PM	Watching Blue's Clues after school.	4:35 AM 4:35 PM

Answer Key

Building the Numeracy of Time

Answer Key

<u>Directions:</u> Ring the correct time that matches the description.

Walking to school in the morning

Sound asleep in my bed.

School dismissal 3:00 PM

Start of a new day - midnight.

7:30 AM 7:30 PM

4:00 AM 4:00 PM

3:00 AM

12:00 AM 12:00 PM

Going to recess with my classmates.

10:30 AM 10:30 PM

5:30 AM

5:30 PM

Completing my nightly homework

5:00 AM

Eating dinner with my family.

Going to bed for the night.

8:30 AM

8:30 PM

5:00 PM

<u>Directions:</u> Ring the correct time that matches the description.

Riding the bus after school.

3:15 AM 3:15 PM

Riding the bus to school.

7:05 AM 7:05 PM

At recess – playing tag with my friends. 10:47 AM 10:47 PM

Doing my homework at my house.

5:1<u>0</u> AM 5:10 PM

Sleeping in my bed at night.

Eating lunch with my class.

Playing baseball after school

Watching Blue's Clues after school.

1:52 AM 1:52 PM

12:15 AM 12:15 PM

> 5:05 AM 5:05 PM

4:35 AM

:35 PM

Building the Numeracy of Time

<u>Directions:</u> Ring the correct time that matches the description.

		-		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Playing at recess with my friends.	9:30 AM \\ 9:30 PM	Eating lunch.	12:30 AM \\\ 12:30 PM
	Saying "Good-bye" to my teacher.	3:00 AM 3:00 PM	Saying "Hello" to my teacher.	7:30 AM 7:30 PM
	At school dismissal	3:15 AM 3:15 PM	Practicing the piano at home.	5:00 AM 5:00 PM
	In science class at school.	1:00 AM 1:00 PM	Sound asleep in bed.	2:30 AM 2:30 PM

,				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Reading a book after school.	4:15 AM \ 4:15 PM	Bedtime story with my older sister.	7:52 AM \\\\\ 7:52 PM
 	Riding the bus to school.	7:05 AM 7:05 PM	Eating lunch with my class.	12:15 AM 12:15 PM
 	At recess – playing tag with my friends.	9:35 AM 9:35 PM	Getting out of my car after school	4:05 AM 4:05 PM
: ! ! ! ! ! ! !	Doing my home- work at my house.	6:10 AM 6:10 PM	Eating an after school snack	3:30 AM 3:30 PM

Answer Key

Building the Numeracy of Time

Answer Key

<u>Directions:</u> Ring the correct time that matches the description.

Playing at recess 9:30 AM with my friends. 9:30 PM

Saying "Good-bye" 3:00 AM to my teacher. 3:00 PM

At school 3:15 AM dismissal 3:15 PM

In science class 1:00 AM at school. 1:00 PM

Eating lunch.

12:<u>30</u> AM 12:30 PM

Saying "Hello" to my teacher.

7:30 AM 7:30 PM

Practicing the piano at home.

5:00 AM 5:00 PM

Sound asleep in bed.

2:30 AM 2:30 PM

<u>Directions:</u> Ring the correct time that matches the description.

Reading a book after school.

4:1<u>5</u> AM 4:15 PM

Riding the bus to 7:05 AM school. 7:05 PM

At recess – playing tag with my friends.

9:35 AM 9:35 PM

Doing my homework at my house. 6:1<u>0</u> AM 6:10 PM Bedtime story with my older sister.

7:52 AM 7:52 PM

Eating lunch with my class.

12:<u>15</u> AM 12:15 PM

Getting out of my car after school

4:05 AM 4:05 PM

Eating an after school snack

3:30 AM 3:30 PM

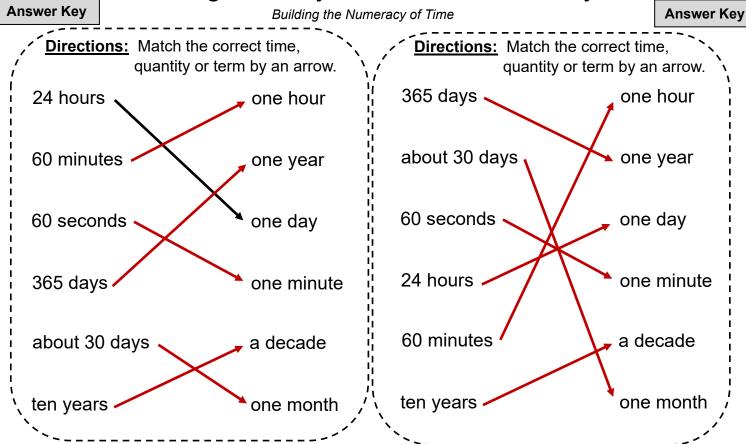
Building the Numeracy of Time

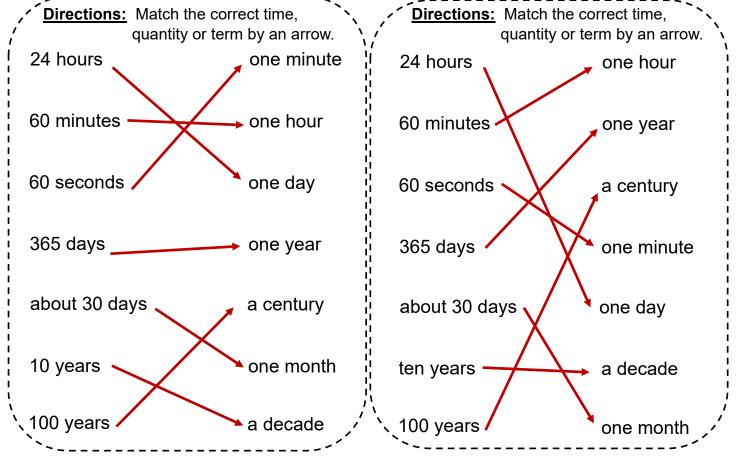
<i>;</i> ′	Directions: Match the correquantity or term	
 	24 hours	one hour
 	60 minutes	one year
 	60 seconds	one day
 	365 days	one minute
 	about 30 days	a decade
! ! . \ .	ten years	one month

Directions: Match the correct time, quantity or term by an arrow.				
365 days		one hour		
about 30 da	ays	one year		
60 seconds		one day		
24 hours		one minute		
60 minutes		a decade		
ten years		one month		

<u>Directions:</u>	Match the cori quantity or terr	•
24 hours		one minute
60 minutes		one hour
60 seconds		one day
365 days		one year
about 30 da	ıys	a century
l 10 years		one month
`,100 years		a decade

Directions:	Match the co	orrect time, rm by an arrow.	
24 hours		one hour	
60 minutes		one year	
60 seconds		a century	
365 days		one minute	
about 30 da	ays	one day	
ten years		a decade	
100 vears		one month	,

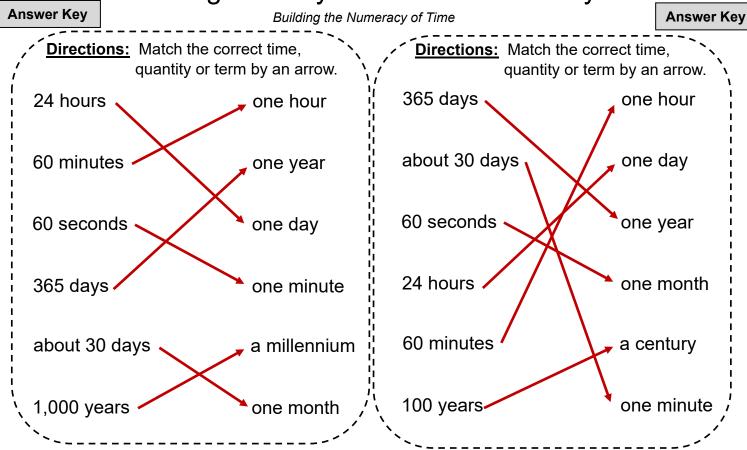


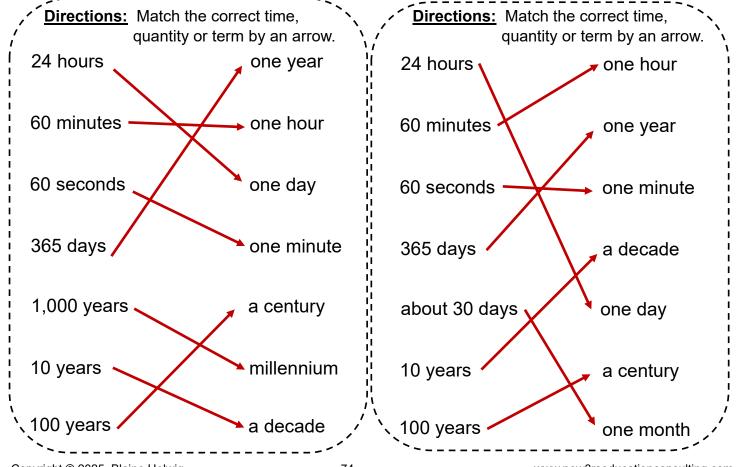


Building the Numeracy of Time

i	Directions: Match the corn quantity or terr	• /	Directions: Match the corrections quantity or terr	\
1 1 1 1 1	24 hours	one hour	365 days	one hour
1111	60 minutes	one year	about 30 days	one day
	60 seconds	one day	60 seconds	one year
	365 days	one minute	24 hours	one month
	about 30 days	a millennium	60 minutes	a century
į	1,000 years	one month	100 years	one minute

Directions:	Match the correct time, quantity or term by an arrow.	<u>Directions:</u> Matc	h the correct time, ity or term by an arrow.
24 hours	one year	24 hours	one hour
: 60 minutes	one hour	60 minutes	one year
i 60 seconds	one day	60 seconds	one minute
365 days	one minute	365 days	a decade
¦ 1,000 years !	a century	about 30 days	one day
¦ ¦ 10 years	millennium	10 years	a century
`, 100 years	a decade	'\ `` 100 years	one month





Building the Numeracy of Time

/ Direc	tions: Match the corr quantity or term		<u>Directions:</u>	Match the correquantity or term	
24 hou	urs	one month	365 days		one day
60 mir	nutes	one day	about 30 da	nys	one month
: 60 sec	conds	one year	60 seconds		one year
365 da	ays	one minute	24 hours		one minute
about	30 days	one hour	60 minutes		a century
1,000	years	a millennium	100 years		one hour

	atch the correct time, antity or term by an arrow.	Directions: Matcl	h the correct time, ity or term by an arrow.
24 hours	one minute	24 hours	one hour
60 minutes	one hour	l 60 minutes	one day
60 seconds	a century	60 seconds	a century
365 days	one year	365 days	a decade
1,000 years	one day	10 years	one year
i ¦ 100 years ¦	millennium	about 30 days	one minute
10 years	a decade	100 years	one month

