Time

Seven units used to measure time are **seconds (s)**, **minutes (min)**, **hours (hr)**, **days (d)**, **weeks (wk)**, **months (mo)**, and **years (yr)**. A.M. is used to tell the time from midnight to noon. P.M. is used to tell the time from noon to midnight.

Converting Time

The table below shows the conversions for units of time.

Desired Conversion	Operation	Example
seconds to minutes	divide by 60	180 s = 3 min
minutes to seconds	multiply by 60	5 min = 300 s
minutes to hours	divide by 60	360 min = 6 hr
hours to minutes	multiply by 60	4 hr = 240 min
hours to days	divide by 24	72 hr = 3 d
days to hours	multiply by 24	6 d = 144 hr
days to weeks	divide by 7	42 d = 6 wk
weeks to days	multiply by 7	3 wk = 21 d
months to years	divide by 12	60 mo = 5 yr
years to months	multiply by 12	4 yr = 48 mo

Example

Jeanie ran 800 meters in 255 seconds. What was her time in minutes and seconds?

Look at the table. Divide 255 by 60 to find the number of minutes and seconds. The whole number portion of the quotient will tell you the number of minutes. The remainder will tell you the number of seconds.

$$\begin{array}{r} 4\ \text{R}15 \\ 60\overline{)255} \\ -\ 240 \\ \hline 15 \end{array}$$

Jeanie ran 800 meters in 4 minutes, 15 seconds.

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TAKS/TEKS Coverage: 4.5.10(A)

Example

Derek and his family went on a cruise that lasted 13 days, 8 hours. How long did the cruise last in hours?

Look at the table. Multiply 13 by 24 to find the number of hours that are equivalent to 13 days.

$$\begin{array}{r} 13 \\ \times\ 24 \\ \hline 52 \\ +\ 260 \\ \hline 312 \end{array}$$

Now add 8 hours to 312 hours. The cruise lasted 320 hours.

Practice

Directions: For Numbers 1 through 6, convert to the given unit(s).

1. 2 hr = _____ min

2. 35 d = _____ wk

3. 75 hr = _____ d, _____ hr

4. 409 min = _____ hr, _____ min

7. Which of the following measurements is the **least**?

   A. 21 mo

   B. 2 yr

   C. 700 d

   D. 110 wk

8. Ella can tread water for 4 minutes, 20 seconds. For how many total seconds can Ella tread water?

   A. 116

   B. 240

   C. 260

   D. 420

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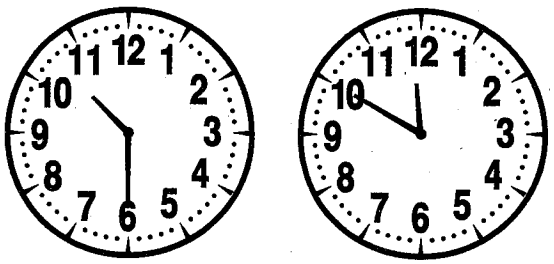
TAKS/TEKS Coverage: 4.5.11(B)

Elapsed Time

Elapsed time is the amount of time from the start of an activity to the end of the activity. It tells you how long an activity lasted.

Example

Ted's baseball practice started at 10:30 and finished at 11:50. How long was Ted's baseball practice?



Starting with 10:30, count the number of whole hours to 11:50.

10:30 to 11:30 = 1 hour

Starting with 11:30, count the number of minutes to 11:50.

11:30 to 11:50 = 20 minutes

Ted's baseball practice was 1 hour, 20 minutes long.

Practice

Directions: Use the schedule below to answer Numbers 1 and 2.

Art Center Class Schedule

Class	Start Time	End Time
Drawing	8:15 A.M.	9:35 A.M.
Painting	11:45 A.M.	1:20 P.M.
Pottery	3:50 P.M.	5:15 P.M.

1. Melinda is going to take the drawing class. How long will she be in class?

_____

2. Charlie is going to take both the painting class and the pottery class. How long will he be in the two classes combined?

_____

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TAKS/TEKS Coverage: 4.5.11(B)

3. Meredith's mom is baking potatoes for dinner. She put the potatoes in the oven at 5:35. The potatoes need to bake for 45 minutes. What time should Meredith's mom take the potatoes out of the oven?

_____

4. Sam started practicing the piano at 11:47 A.M. and finished at 1:53 P.M. How long did Sam practice the piano?

_____

5. Jessica is going to a birthday party that starts at 6:30. It will take 35 minutes to get from her house to the birthday party. What is the latest possible time Jessica can leave her house and get to the party on time?

_____

Directions: Use the calendar below to answer Numbers 6 through 8.

September

Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

6. Malachi went to visit his grandparents in Corpus Christi on September 3. He stayed until September 17. How many weeks was Malachi visiting his grandparents?

_____

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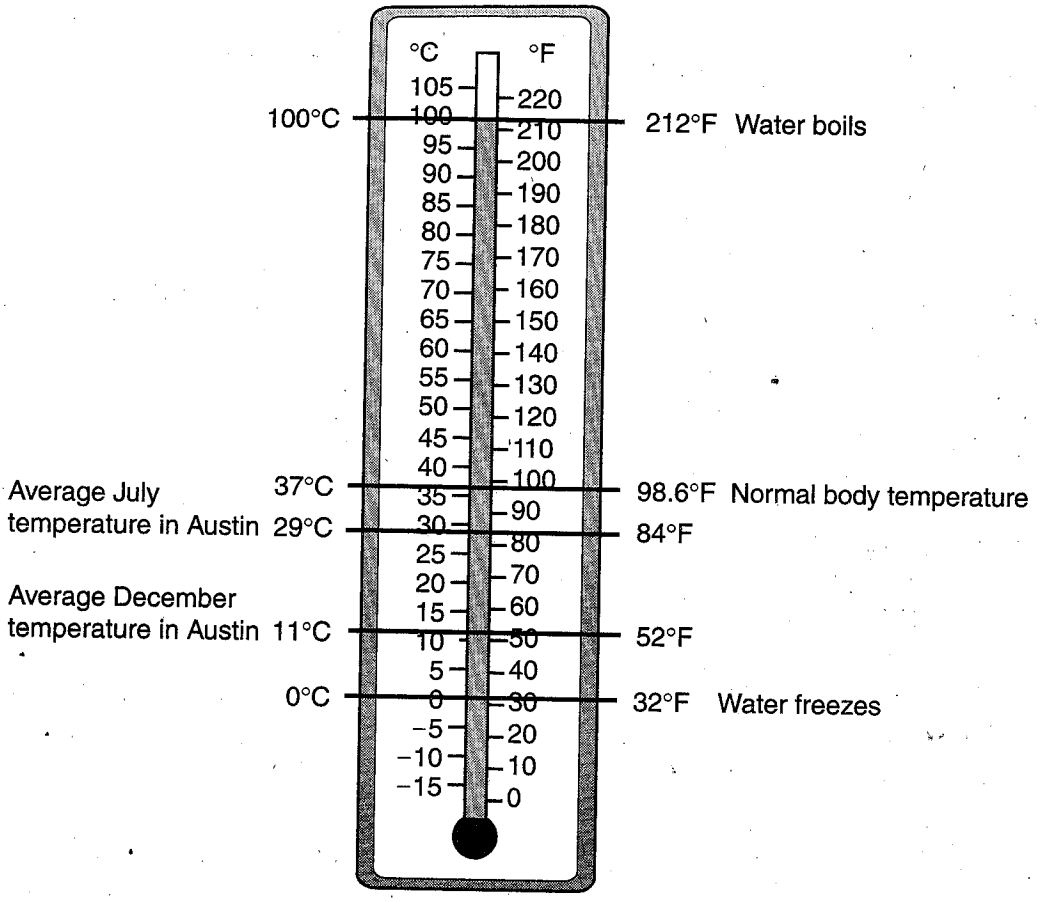
TAKS/TEKS Coverage: 4.5.11(A)

Temperature

The U.S. customary unit of temperature is **degrees Fahrenheit (°F)**. The metric unit of temperature is **degrees Celsius (°C)**.



Practice

1. Name some things you would wear outside if the temperature were 33°C.

_____

_____

2. Name some things you would wear outside if the temperature were 33°F.

_____

_____

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TAKS/TEKS Coverage: 4.5.11(A)

3. Max said the temperature outside was 55 degrees. Was he most likely measuring in degrees Celsius or degrees Fahrenheit? Explain your answer.

_____

_____

_____

4. The temperature was 68°F. It suddenly dropped 23°F. What was the temperature after the sudden drop?

_____

5. The temperature was 83°F. It dropped to 69°F. How many degrees did the temperature drop?

_____

6. Room temperature is about 22°C. What is this temperature to the nearest 5°F?

_____

7. A temperature of 86°F is what temperature in °C?

   A. 27°C

   B. 30°C

   C. 33°C

   D. 36°C

8. The 6:00 A.M. temperature was 62°F. The noon temperature was 22°F warmer than the 6:00 A.M. temperature. The 10:00 P.M. temperature was 8°F less than the noon temperature. What was the 10:00 P.M. temperature?

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1 When Garrett woke up this morning, the temperature was 68°F. By 3:00 P.M., the temperature had risen 17 degrees. What was the temperature at 3:00 P.M.?

A 51°F

B 61°F

C 75°F

D 85°F

2 Tanya's family moved to Camden, Texas $2\frac{1}{3}$ years ago. How many months ago did Tanya's family move to Camden?

F 28

G 27

H 24

J 21

3 Which of the following measurements is the least?

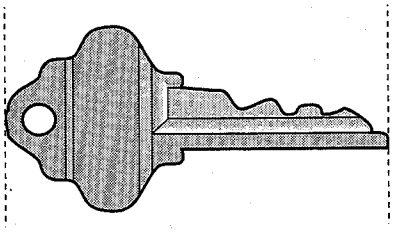
A 1 liter

B 5 kiloliter

C 80 liter

D 1,200 milliliter

4 The following key is the actual size of a house key.



What is the length of the key to the nearest centimeter?

F 2

G 3

H 4

J 5

5 Kevin has 3,000 grams of sand to use in a science experiment. He needs to put the sand into 1-kilogram boxes. How many 1-kilogram boxes will Kevin use for the sand?

A 0.3

B 3

C 30

D 300

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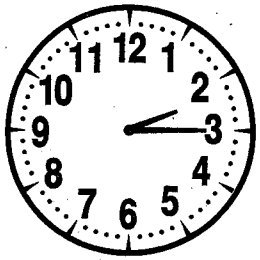
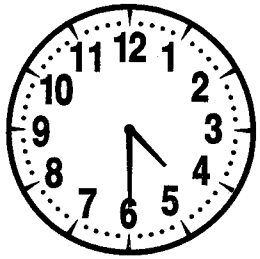
GO ON

6 Becky arrived at the video arcade at 2:15 P.M. She left the arcade at 4:30 P.M.





How long was Becky are the arcade?

F 1 hour, 15 minutes

G 1 hour, 45 minutes

H 2 hours, 15 minutes

J 2 hours, 45 minutes

7 The gas tank in Jon's car holds 15 gallons of gas. How many quarts of gas does Jon's gas tank hold?

A 30

B 45

C 60

D 75

8 Which of the following lengths is the shortest?

F 200 millimeters

G 200 centimeters

H 200 meters

J 200 kilometers

9 When Collin was born, he weighed 8 pounds, 4 ounces. How many ounces did Collin weigh when he was born?

A 124 ounces

B 128 ounces

C 132 ounces

D 136 ounces

10 Destiny has a dentist appointment today at 2:30 P.M. It is 10:45 A.M. now. How long is it until Destiny's appointment?

F 3 hours, 15 minutes

G 3 hours, 45 minutes

H 4 hours, 15 minutes

J 4 hours, 45 minutes

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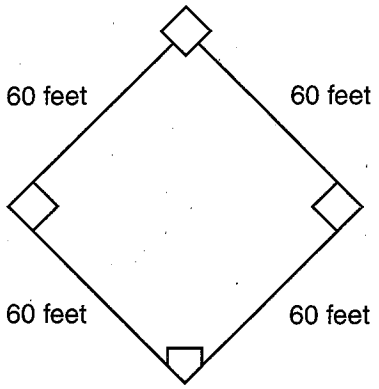
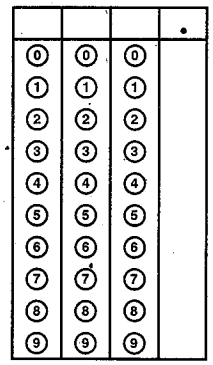
11 A Little League baseball diamond is a square with 60 feet between bases.



How many yards does a baseball player run after hitting a home run (running once around the diamond)?

Record your answer and fill in the bubbles below. Be sure to use the correct place value.



12 During a Dallas Cowboys football game, Ivan saw that the field was 120 yards long. How many feet long was the field?

F 300 feet

G 360 feet

H 380 feet

J 420 feet

13 Jon kept track of the changes in temperature one day. From midnight to 5:30 A.M., the temperature dropped 6°F. From 5:30 A.M. to 4:00 P.M., the temperature rose 19°F. From 4:00 P.M. to 11:59 P.M., the temperature dropped 8°F. At 11:59 P.M., the temperature was 61°F. What was the temperature at midnight the night before?

A 71°F

B 69°F

C 66°F

D 56°F

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STOP

TAKS/TEKS Coverage: 4.5.10(B), 4.5.10(C)

Lesson 10: Geometric Measurement

In this lesson, you will review the geometric concepts of perimeter, area, and volume.

Perimeter

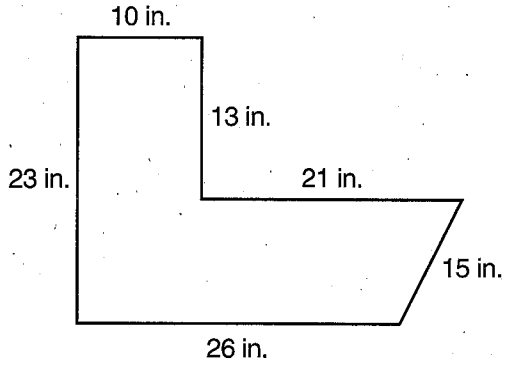
Perimeter (*P*) is the distance around the outside of a polygon. Perimeter is measured in **linear units**. To find the perimeter of a polygon, add the lengths of all of the **sides (*s*)**.

Use the following formula to find the perimeter of a polygon:

$$P = s_1 + s_2 + s_3 + \ldots + s_n$$

Example

What is the perimeter of this polygon?



Add the lengths of the sides.

$$P = 23 + 10 + 13 + 21 + 15 + 26$$
$$= 108$$

The perimeter of the polygon is 108 centimeters.

When the figure is a rectangle, one pair of opposite sides is often the **length**, and the other pair of opposite sides is often the **width**.

Example

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