Date Time

LESSON 12•3

Do These Numbers Make Sense?

SRB 47

Math Message

It is estimated that the average lifetime of a person living in the United States is about 75 years.

About how many days are there in an average lifetime? _____ days

About how many hours is that? _____ hours

Use the data from the above Math Message to help you answer the following questions:

1. It is estimated that a person sleeps about 214,000 hours in an average lifetime.

   a. At that rate, about how many hours *per day* does a person sleep? _____ hours per day

   b. Show or explain how you got your answer.

   c. Does this number make sense to you? Explain.

2. It is estimated that in an average lifetime a person watches about 105,000 hours of TV.

   a. At that rate, about how many hours *per day* does a person watch TV? _____ hours per day

   b. Show or explain how you got your answer.

   c. Does this number make sense to you? Explain.

Date Time

LESSON 12•3

Do These Numbers Make Sense? *continued*

3. It is estimated that in an average lifetime a person laughs about 540,000 times.

a. At that rate, about how many times *per day* does a person laugh? _____ times per day

b. Show or explain how you got your answer.

c. Does this number make sense to you? Explain.

_____

_____

_____

4. It is estimated that in an average lifetime, a person takes about 95,000,000 breaths. Does this number make sense to you? Explain.

_____

_____

_____

Try This

5. Write your own problem. Ask a partner to decide whether or not the numbers in your problem make sense.

_____

_____

_____

Date Time

LESSON 12•3

Line Graph

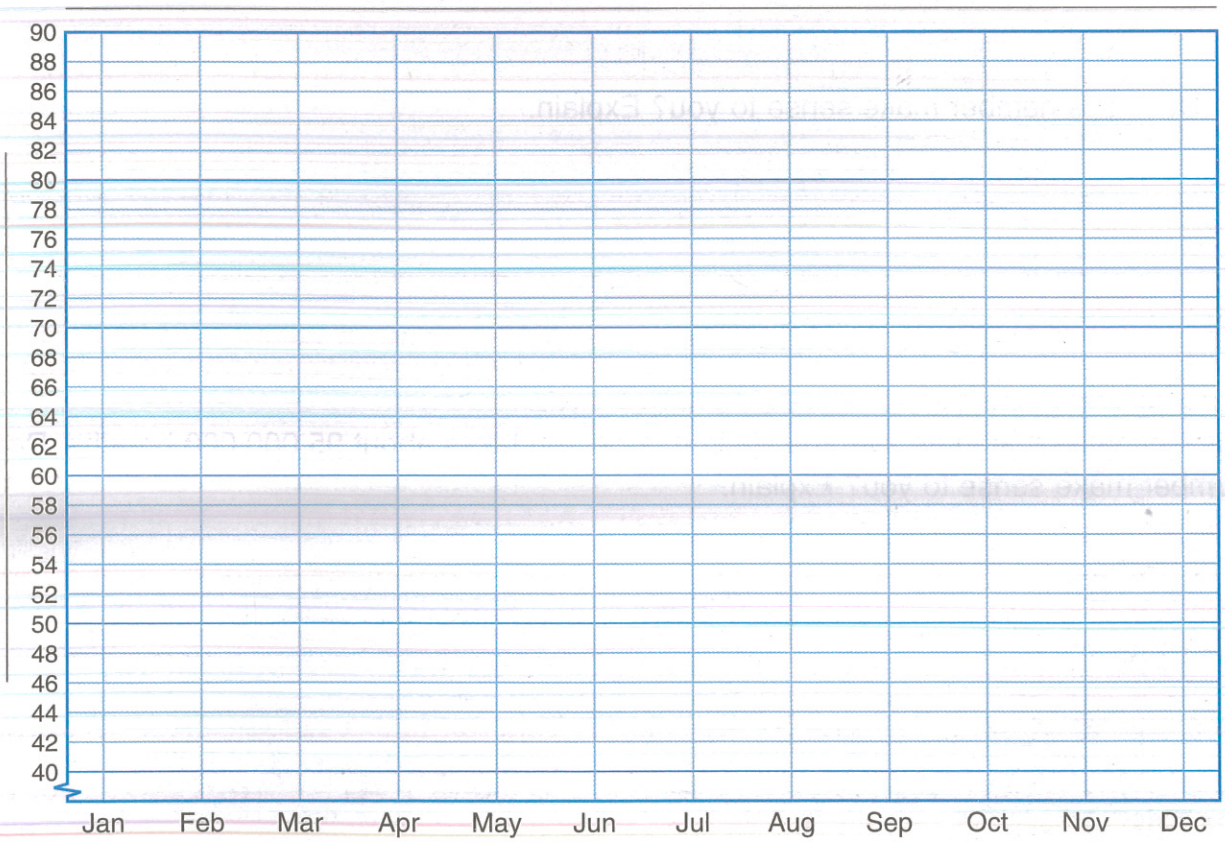
SRB 79

1. Use the data in the table below to create a line graph showing how the total amount of precipitation (rain and snow) changes from month to month in Ottawa, the capital of Canada.

Use a straightedge to connect the points. Label each axis, and give the graph a title.

Month	J	F	M	A	M	J	J	A	S	O	N	D
Precipitation (in mm)	51	50	57	65	77	84	87	88	84	75	81	73

Source: www.theweathernetwork.com/weather/stats/pages/C01930.htm



Try This

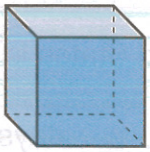
2. In Ottawa, Canada, it rains or snows _____ mm during a typical month.

Date Time

LESSON 12•3

Math Boxes

1.



a. Pick a face of the cube. How many other faces are perpendicular to it?

_____ face(s)

b. Pick an edge of the cube. How many other edges are perpendicular to it? _____ edge(s)

SRB 94 101

2. Calculate the volume.

Number model: _____

Volume = _____ m^3

SRB 138

3. Write A, P, or V to tell whether you would need to find the area, perimeter, or volume in each situation.

a. Buying paint for a bedroom ceiling _____

b. Buying a wedding ring _____

c. Buying dirt for a potted plant _____

SRB 131 133 137

4. Insert <, >, or = to make a true number sentence.

a. \$8 _____ −\$3

b. −\$7 _____ −\$2

c. \$18 _____ −\$11

d. \$61.50 _____ −\$67.85

e. −\$203.90 _____ \$320.10

SRB 60

5. Name all the factors of each number.

a. 55 _____

b. 32 _____

c. 96 _____

SRB 7

6. Round each number to the nearest hundredth.

a. 0.123 _____

b. 4.568 _____

c. 6.155 _____

d. 9.780 _____

e. 0.006 _____

SRB 182 183

Name Date Time

STUDY LINK 12•3

Mammal Rates

1. A mole can dig a tunnel 300 feet long in one night. How far could a mole dig in one week?

About _____ feet

2. An elephant may eat 500 pounds of hay and drink 60 gallons of water in one day.

a. About how many pounds of hay could an elephant eat per week?

About _____ pounds

b. About how many gallons of water could an elephant drink per week?

About _____ gallons

3. The bottle-nosed whale can dive to a depth of 3,000 feet in 2 minutes. About how many feet is that per second?

About _____ feet per second

4. A good milking cow will give up to 1,500 gallons of milk in a year.

a. About how many gallons is that in 3 months?

About _____ gallons

b. About how many *quarts* is that in 3 months?

About _____ quarts

Try This

5. Sloths spend up to 80 percent of their lives sleeping. Not only is a sloth extremely sleepy, but it is also very slow. A sloth travels on the ground at a speed of about 7 feet per minute. In the trees, its speed is about 15 feet per minute.

a. After one hour, how much farther would a sloth have traveled in the trees than on the ground (if it didn't stop to sleep)?

About _____ feet

b. About how long would it take a sloth to travel 1 mile on the ground? (*Hint:* There are 5,280 feet in a mile.)

About _____ minutes,

or _____ hours

Practice

6. 59 * 27 = _____

7. _____ = 648 * 85

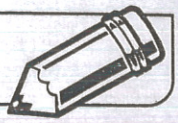
8. 904 ÷ 5 = _____

9. _____ = 536 / 8

Name Date Time

LESSON 12•3

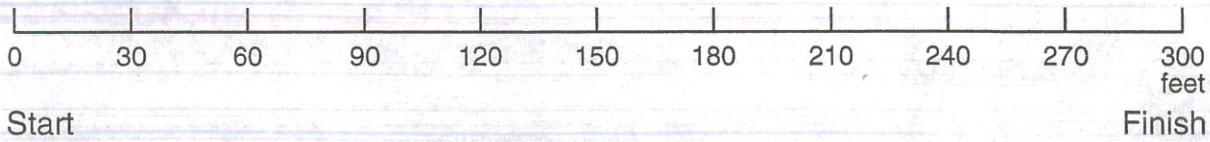
Mammal 100-Yard Dash



It could not happen, of course, but suppose that you, an elephant, and a cheetah were to race a distance of 100 yards, or 300 feet. Which of you would win? Which would come in second? Third?

1. My Prediction: First _____ Second _____ Third _____

2. On the diagram below, show the winner crossing the finish line. Estimate where you think the second-place and third-place mammals would be when the fastest mammal wins. Write "C" for the cheetah, "E" for the elephant, and "Me" for yourself.



3. What information would help you predict the winner?

_____

_____

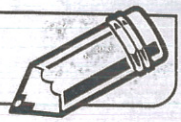
4. Complete the table below by using the "last race results" to find each mammal's top sprint speed in feet per second.

Mammal	Last Race Results	Top Sprint Speed (approximate)
Fourth Grader	84 yards in 12 seconds	_____ ft/sec
Cheetah	2,448 inches in 2 seconds	_____ ft/sec
Elephant	36 yards in 3 seconds	_____ ft/sec

Name Date Time

LESSON 12•3

Mammal 100-Yard Dash *continued*



5. According to the ft/sec rates, how would the 300-foot race among an elephant, a cheetah, and a fourth grader turn out?

   First _____ Second _____ Third _____

6. About how long would it take for the winner of the race to run 300 feet?

   About _____ seconds

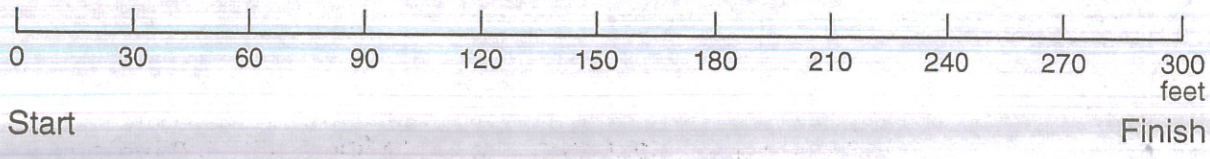
7. By the time the winner crosses the finish line, how far would the other mammals have run?

   Second-place mammal About _____ feet

   Third-place mammal About _____ feet

8. Would it be a close race? _____

9. On the diagram below, show which mammal will win the race and where the other two mammals will be when the winner crosses the finish line.



10. About how many times faster is the first-place mammal than

    a. the second-place mammal? _____

    b. the third-place mammal? _____

11. The top sprint speed for a squirrel is 18 feet per second. Does this mean that you could catch a squirrel by running after it? Explain.

_____

_____

_____