- 1. Consider the expression $2\frac{1}{2} (\frac{3}{4} + \frac{5}{8})$.
 - **a.** Which operation is done first, subtraction or addition?
 - b. Write the computation in words.
- **2.** Consider the expression $4.5 + 6 \times 0.1$.
 - a. Which operation is done first, addition or multiplication?
 - **b.** Write the computation in words.

Write the computation in words.

3.
$$7 \div \frac{1}{7}$$

Write an expression for the words.

7. Add
$$\frac{1}{6}$$
 and $\frac{4}{9}$.

- 8. Subtract the product of 5 and 11 from 100.
- **9.** Divide 9 by 2 and then add 5.7. _____
- **10.** Multiply 42 by the sum of 4 and *r*. _____

Complete each division. Check your answer.

Divide.

Write an equation to solve the problem. Draw a model if you need to.

- 10. Jesse drives $6\frac{3}{8}$ miles in a golf cart during a round of golf. Payton drives $7\frac{3}{4}$ miles. How much farther does Payton drive?
- 11. Stretch Your Thinking Write the computation in words for an expression that uses all four operations (addition, subtraction, multiplication, and division). Then, write an expression for the words.

1. Follow the Order of Operations to simplify $27 \div (3 \cdot 3) + 17$

- **Step 1** Perform operations inside parentheses.
- Step 2 Multiply and divide from left ______ to right.
- Step 3 Add and subtract from left to _____ right.

Simplify. Follow the Order of Operations.

2.
$$54 - 200 \div 4$$

3.
$$0.8 \div (0.07 - 0.06)$$

4.
$$3 \cdot 8 - 6 \div 2$$

5.
$$(\frac{3}{8} + \frac{1}{4}) \cdot 16$$

7.
$$72 \div (7-1) \cdot 3$$

8.
$$0.8 - 0.5 \div 5 + 0.2$$

9.
$$\frac{5}{6}$$
 - 4 · $\frac{1}{12}$

11. 32 ÷ (2.3 + 1.7) · 3 **12.**
$$(1\frac{1}{2} - \frac{3}{4}) \times \frac{1}{4}$$

12.
$$(1\frac{1}{2} - \frac{3}{4}) \times \frac{1}{4}$$

13.
$$(6.3 - 5.1) \cdot (0.7 + 0.3)$$

14.
$$12 \div 0.1 + 12 \div 0.01$$
 15. $\frac{1}{2} \cdot \frac{1}{2} \div \frac{1}{2}$

15.
$$\frac{1}{2} \cdot \frac{1}{2} \div \frac{1}{2}$$

16.
$$10 - 4 + 2 - 1$$

Solve.

Write an equation to solve the problem. Draw a model if you need to.

- **4.** The students of Turner Middle School are going on a field trip. There are 540 students attending. A bus can hold 45 students. How many buses are needed for the field trip?
- **5.** The area of a rectangular court is 433.37 square meters, and the length of the court is 28.7 meters. What is width of the court?

Write the computation in words.

6.
$$5 \div \frac{1}{8}$$

8. Stretch Your Thinking Write step-by-step instructions for simplifying the following expression.

$$10 \cdot [60 \div (11 + 4)] - 3$$

Evaluate the expression.

1.
$$m \div 0.3$$
 for $m = 1.8$ **2.** $3\frac{1}{3} - x$ for $x = \frac{5}{6}$

2.
$$3\frac{1}{3} - x$$
 for $x = \frac{5}{6}$

3.
$$50 - n \div 2$$
 for $n = 30$

4.
$$x \cdot 1\frac{1}{2}$$
 for $x = 10$

5.
$$10 \cdot (20 + d)$$
 for $d = 30$

6.
$$120 \div (x \cdot 6)$$
 for $x = 2$

7.
$$a \cdot \frac{1}{3} + 3 \div \frac{1}{3}$$
 for $a = 3$

7.
$$a \cdot \frac{1}{3} + 3 \div \frac{1}{3}$$
 for $a = 3$ 8. $(0.15 - t) \cdot 100$ for $t = 0.02$ 9. $h \div 0.07$ for $h = 4.9$

9.
$$h \div 0.07$$
 for $h = 4.9$

- 10. Max bought a pair of jeans for \$32 and three T-shirts for t dollars each.
 - a. Write an expression for the total amount Max spent.
 - **b.** If each T-shirt cost \$9, how much did Max spend?
- 11. Luke is 4 years younger then Zoe. Mischa is half Luke's age. Let z be Zoe's age.
 - a. Write an expression for Luke's age.
 - **b.** Write an expression for Mischa's age.
 - c. If Zoe is 16 years old, how old are Luke and Mischa?

Solve.

Write a word problem for the equation. Draw a model to show the product.

7.
$$\frac{1}{2} \cdot \frac{4}{5} = x$$

Simplify. Follow the Order of Operations.

8.
$$\frac{3}{5} - 2 \cdot \frac{1}{10}$$

9.
$$40 \div (6-1) \cdot 3$$

10.
$$\left(\frac{1}{2} + \frac{3}{8}\right) \cdot 24$$

11.
$$0.4 \div (0.09 - 0.07)$$
 12. $66 - 150 \div 10$

13.
$$6 \cdot 5 - 9 \div 3$$

14. Stretch Your Thinking Write a two-operation expression that equals 31 when evaluated for x = 5.

- **1. a.** Write the first five terms of a numerical pattern that begins with 2 and then adds 3.
 - **b.** Write an expression for the sixth term of the pattern.
 - c. Write the sixth term.
- 2. a. Write the first five terms of a pattern that ____ __ ___ ____ begins with 5, and then adds 5.
 - **b.** Write the first five terms of a pattern that ____ __ __ ___ ___ ___ begins with 20, and then adds 20.
 - **c.** Circle the corresponding pairs of terms in the patterns. How does the top term compare to the bottom term?
 - **d.** How does the bottom term compare to the top term?

Complete the table and use it for Problems 3 and 4.

Cost of Music Downloads

Number of Songs	1	2	3	4	5
Cost in Dollars	\$0.99	\$1.98			

- **3.** Describe a relationship shared by the corresponding terms.
- 4. What would be the cost of downloading 6 songs?

Solve.

Show your work.

- 1. Manny has 40 ounces of butter that he is cutting into 1.25-ounce slices. How many slices will he have?
- **2.** Tracy is running in a 5.25-kilometer race on Saturday. A marathon is approximately 42 kilometers. How many times as long as Tracy's race is a marathon?

Write an equation to solve the problem. Use mental math or estimation to show that your answer is reasonable.

3. Each Saturday morning, Janie works 5 hours and earns \$35.75. How much does Janie earn for each hour she works?

Equation: _____

Estimate: _____

Evaluate the expression.

4.
$$120 \div (t \cdot 3)$$
 for $t = 4$ **5.** $m \cdot 2\frac{2}{3}$ for $m = 5$

5.
$$m \cdot 2\frac{2}{3}$$
 for $m = 5$

6.
$$4 \cdot (2 + c)$$
 for $c = 8$

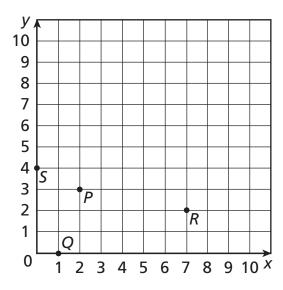
7.
$$7\frac{1}{2} - p$$
 for $p = \frac{5}{6}$

8.
$$60 - z \div 2$$
 for $z = 20$ **9.** $x \div 0.9$ for $x = 3.6$

9.
$$x \div 0.9$$
 for $x = 3.6$

10. Stretch Your Thinking Create your own numerical pattern. Write the starting number, the rule, and the first 5 terms in the pattern. Then write an expression for the tenth term.

Use the coordinate plane below to answer the questions.



Write an ordered pair to represent the location of each point.

- **1.** point *P* _____
- 2. point Q _____ 3. point R ____ 4. point S ____

Plot and label a point at each location.

- **5.** point *W* at (3, 9)
- **6.** point *X* at (3, 5)
- **7.** point *Y* at (9, 5)

Solve.

8. Suppose points W, X, and Y represent three vertices of rectangle WXYZ. Where should point Z be plotted?

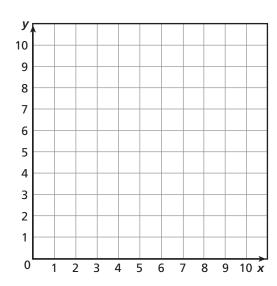
Plot and label point Z. Then use a ruler to draw the rectangle.

- **9.** What ordered pair represents the point at the center of the rectangle?
- 10. Use subtraction to find the lengths of segments WX and XY.

Show your work.

Divide.

- 7. a. Write the first five terms of a numerical pattern that begins with 5 and then adds 6.
 - **b.** Write an expression for the sixth term of the pattern.
 - c. Write the sixth term.
- **8. Stretch Your Thinking** List and graph four ordered pairs that are vertices of a rectangle with a perimeter of 16 units.



The add 3 table below shows a numerical pattern in the left column and the result of adding 3 in the right column.

add 3		
0	3	
1		
2		
3		
4		

	(x, y)	
(_,)
(,)
(_,)
()
()

10 9 8 7 6 5 4 3 2 1 0 1 2 3 4 5 6 7 8 9 10 x

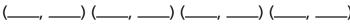
- 1. Complete the add 3 table.
- 2. Complete the (x, y) table.
- **3.** Each (*x*, *y*) pair of terms represents a point. Graph and connect the points.

A freight train is traveling at a constant speed of 20 miles per hour.

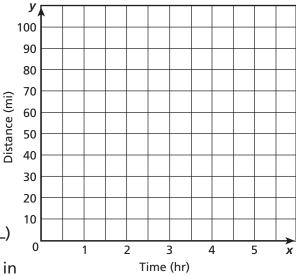
4. Complete the table to show the distance the train will travel in 0, 1, 2, and 3 hours.

Time (hr)	0	1	2	3
Distance (mi)		20		

5. Write the ordered (*x*, *y*) pairs the data represent. Then graph and connect the points and extend the line.

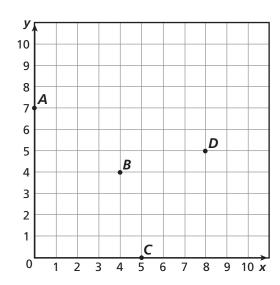


6. How far would you expect the train to travel in $2\frac{1}{2}$ hours? Explain your answer.



Multiply.

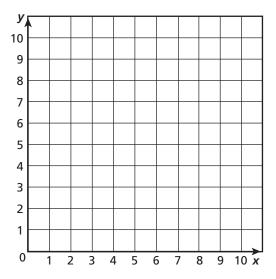
Use the coordinate plane below to answer the questions.



Write an ordered pair to represent the location of each point.

- **5.** point *A*
- **6.** point *B*
- **7.** point *C*
- **8.** point *D*
- **9. Stretch Your Thinking** Give the ordered pair for a point *E* so that when the points *B*, *D*, *E*, and *C* are connected (in that order), a square is formed. Then, find the area of square *BDEC*.

1. On the coordinate plane below, plot and label points to design your own constellation. When you return to class, share your constellation with your class.



- **2.** Write the name of your constellation.
- **3.** Write the order in which your points are to be connected.

- **4.** Explain how you can tell that two points will be on the same horizontal line just by looking at their coordinates.
- **5.** Explain how you can tell that two points will be on the same vertical line just by looking at their coordinates.

Write and solve an equation to solve the problem.

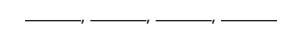
1. A group of 25 classmates visits an amusement park. When they arrive, $\frac{3}{5}$ of the students want to ride the fastest roller coaster first. How many students is this?

Nicole makes \$8 per hour working at a daycare center.

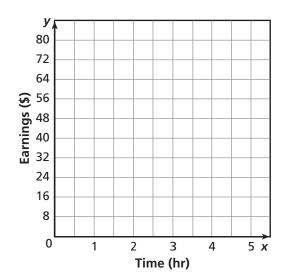
2. Complete the table.

Time (hr)	0	1	2	3
Earnings (\$)		8		

3. Write the ordered (*x*, *y*) pairs the data represent. Then graph and connect the points and extend the line.



4. How much money would Nicole make in $2\frac{1}{2}$ hours? Explain your answer.



5. Stretch Your Thinking Which points listed lie on the line? Which points do not lie on the line? Explain.



