LESSON PRACTICE

Multiply.

1. (+5) x (–6) =
2. (–6) x (–7) =
3. (–9) x (–10) =
4. (–10) x (+12) =
5. (–5) x (–8) =
6. (–16) x (–11) =
7. (+4) x (–15) =
8. (–18) x (–6) =
9. (–16) x (+12) =
10. (–17) x (+3) =
11. (–18) x (–4) =
12. (–24) x (–5) =
13. (–11) x (+16) =
14. (+3) x (–24) =
15. (+8) x (–12) =
16. (–10) x (–16) =

Write your answers as negative or positive numbers.

17. The team lost three games a week. What is the team's record at the end of six weeks?

18. Jim managed to lose 25 cents a day for 10 days. Express his loss as –25 cents a day. What was his total loss?

19. Karen's budget was short $30 each month. Express her shortfall as –30. How much money was she short at the end of a year?

20. Peter's feet are each 12 inches long. He stepped out the length and width of a room and found it measured 10 feet by 12 feet. What is the area of the room Peter measured?*

*Note: Distance is expressed with a positive number. The area of a rectangle is found by multiplying the length times the width. The answer is always given in square units.

LESSON PRACTICE

Multiply.

1. (+36) x (–4) =

2. (–4) x (–19) =

3. (–6) x (–8) =

4. (–24) x (–6) =

5. (–25) x (–3) =

6. (–10) x (+19) =

7. (–8) x (+6) =

8. (–42) x (+16) =

9. (–50) x (–19) =

10. (+25) x (–6) =

11. (+23) x (–13) =

12. (–46) x (–8) =

13. (–16) x (–24) =

14. (–8) x (–16) =

15. (–42) x (–15) =

16. (–17) x (+48) =

Write your answers as negative or positive numbers.

17. I owed Sara three dollars. Express my debt as –3. Because I forgot to pay her back right away, she wants me to pay back two times the amount. What is my debt?

18. The jar of face cream has been advertised to take 10 years off the user's age with each application. If Ashley has used it five times, what is the effect on her age?

19. Tom's mortgage is $682 a month. If he fails to pay it for four months, what is the effect on his budget?

20. A pitcher gave up three runs in each inning (–3). What is the effect on the score after nine innings?

LESSON PRACTICE

Multiply.

1. (+8) x (–5) =

2. (–6) x (+10) =

3. (–3) x (–4) =

4. (–20) x (+12) =

5. (+17) x (+3) =

6. (–8) x (–9) =

7. (–90) x (+4) =

8. (+24) x (–8) =

9. (+42) x (–6) =

10. (–10) x (–10) =

11. (+7) x (–6) =

12. (–18) x (–4) =

13. (–36) x (+4) =

14. (+13) x (–4) =

15. (–17) x (–3) =

16. (+19) x (–51) =

Write your answers as negative or positive numbers.

17. Chris borrowed $2 from Jim each day for five days. Express Chris's debt for one day as a negative number. Then multiply to find his total debt.

18. Mr. Brown loses 32 hairs every day. What is the result in 21 days?

19. The team lost four games a week. What is the team's record of losses at the end of 10 weeks?

20. Anna's flower garden is a rectangle that measures 7' by 14'. What is the area of the garden?

Multiply.

1. (+17) x (–6) =
2. (+22) x (–11) =
3. (–5) x (–9) =
4. (–10) x (+5) =
5. (+6) x (–7) =
6. (–16) x (+9) =

Change the signs as needed and solve.

7. (+5) – (+10) =
8. (–6) + (–9) =
9. (+14) + (–3) =

Find the fraction of the number.

10. $\frac{1}{2}$ of 20 =
11. $\frac{2}{3}$ of 15 =
12. $\frac{4}{9}$ of 27 =

Add or subtract. Leave answers in the form in which they occur.

13. $\frac{1}{10} + \frac{7}{10} =$
14. $\frac{5}{7} - \frac{1}{7} =$
15. $\frac{4}{8} + \frac{1}{8} =$
16. $\frac{7}{12} - \frac{3}{12} =$

QUICK REVIEW

When the numerator and denominator of a fraction are multiplied by the same number, the resulting fraction is *equivalent*. It has the same value as the original fraction but is expressed in a different form.

Example 1

$\frac{1}{2} \times 2 = \frac{2}{4}$ $\quad \frac{1}{2} \times 3 = \frac{3}{6}$ $\quad \frac{1}{2} \times 4 = \frac{4}{8}$

Example 2

$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{4}{8} = \frac{5}{10} = \frac{6}{12}$

You can continue to find as many equivalent fractions for 1/2 as you wish.

Fill in the missing numbers to make equivalent fractions.

17. $\frac{1}{3} = \frac{\quad}{6} = \frac{\quad}{9} = \frac{4}{\quad}$

18. $\frac{2}{5} = \frac{4}{\quad} = \frac{6}{15} = \frac{\quad}{20}$

Write your answers as positive or negative numbers.

19. The fuel tank leaks at a rate of two gallons a week. What is the effect on the contents after 13 weeks?

20. Matthew walked nine miles from the starting point. Then he turned around and walked two miles back. How far is he from his starting point?

Multiply.

1. (+16) x (–10) =

2. (+17) x (–10) =

3. (+23) x (+11) =

4. (–8) x (–4) =

5. (–7) x (–8) =

6. (+10) x (–11) =

Change the signs as needed and solve.

7. (+8) – (+19) =

8. (+17) + (–5) =

9. (–63) – (–50) =

Find the fraction of the number.

10. $\frac{1}{3}$ of 18 =

11. $\frac{3}{7}$ of 49 =

12. $\frac{2}{11}$ of 44 =

Add or subtract. Leave answers in the form in which they occur.

13. $\frac{4}{5} - \frac{2}{5} =$

14. $\frac{5}{6} + \frac{1}{6} =$

15. $\frac{4}{13} + \frac{5}{13} =$

Fill in the missing numbers to make equivalent fractions.

16. $\frac{1}{4} = \frac{\quad}{8} = \frac{3}{\quad} = \frac{\quad}{16}$

17. $\frac{5}{8} = \frac{\quad}{\quad} = \frac{15}{24} = \frac{\quad}{\quad}$

18. By working very hard, George painted 1/8 of the house on Monday and 2/8 of the house on Tuesday. What part of the house has been painted?

Write your answers as positive or negative numbers.

19. Bill ordered a book that cost $25. By mistake he paid the company $30. They sent back an invoice that showed his account balance as a negative number. What was the number?

20. A stunt pilot flew around the perimeter of our town. If the town is a square that measures five miles on each side, what is the area of the town? (A square is a special kind of rectangle.)

Multiply.

1. (+14) x (–5) =

2. (–18) x (+11) =

3. (–9) x (–12) =

4. (+14) x (–6) =

5. (–19) x (–23) =

6. (–19) x (+17) =

Change the signs as needed and solve.

7. (+32) + (–18) =

8. (–94) + (–7) =

9. (+58) – (+100) =

Find the fraction of the number.

10. $\frac{1}{5}$ of 20 =

11. $\frac{2}{3}$ of 21 =

12. $\frac{3}{10}$ of 50 =

Add or subtract. Leave answers in the form in which they occur.

13. $\frac{2}{3} - \frac{1}{3} =$

14. $\frac{4}{7} - \frac{2}{7} =$

15. $\frac{1}{9} + \frac{5}{9} =$

Fill in the missing numbers to make equivalent fractions.

16. $\frac{1}{6} = \frac{\quad}{\quad} = \frac{\quad}{18} = \frac{4}{\quad}$

17. $\frac{3}{7} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{12}{28}$

18. A pizza was cut into twelve pieces. After lunch, five twelfths of a pizza was left over. Then Austin ate three twelfths of a pizza. What part of the pizza was left when Austin finished eating?

Write your answers as positive or negative numbers.

19. Kelly's uncle sent her $15 a month. What was the effect on her income in four months?

20. Thinking her uncle was going to send her $20 a month, Kelly promised that amount to her sister. What is the combined effect of #19 and #20 on Kelly's budget during that four months?

Apply the math skills you already have to solve these problems.

1. A square has a perimeter of 68 units. What is its area?

2. A rectangle has a length of eight units and a width of six units. What is the area of the rectangle? If the length and width of the rectangle are both doubled, what is the new area?

   How many times the original area is the new area?

3. Find half of the original length and width of the rectangle in #2. Then calculate the new area. What part of the original area is the new area?

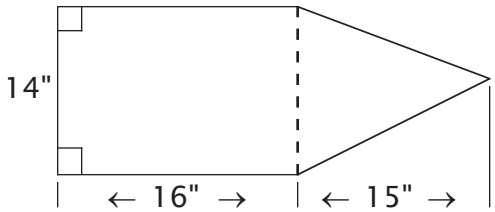
4. If the length and width of a rectangle are both tripled, what will be the effect on the area of the rectangle? Sketch and label two rectangles to illustrate your answer.

5. What is 38.98 rounded to the nearest tenth?

6. Several people are standing in line. Starting at one end, Tony is the third person. Starting at the other end, he is the eleventh person. How many people are standing in line?

If you know how to find the area of simple geometric shapes, you can combine these skills to find the area of more complex shapes. If you need to review area formulas, check the Symbols and Tables pages at the back of this book.

7. What is the area of the figure shown? A dotted line has been drawn to show you how it is made up of two different geometric shapes.



8. The figure below represents a circular piece of metal whose center has been cut out to leave a ring. What is the area of the remaining ring? The straight lines represent the radii of the two circles.