

Decimal Operations *and* Equations *with* Decimals

Review Vocabulary

absolute value, p. 23
solving an equation,
p. 86

BEFORE

You solved equations involving integers.

Now

You'll solve equations involving decimals.

WHY?

So you can find the speed of an airplane, as in Ex. 47.

LESSON

2.7

Name _____

Practice A

For use with pages 102-107

1. Describe and correct the error in the solution.



$$\begin{aligned} -16.07 - (-30.91) &= -16.07 + 30.91 \\ &= -14.84 \end{aligned}$$

Perform the indicated operation.

2. $8.5 + 9.4$

3. $-10.7 + 6.3$

4. $-11.1 + (-7.4)$

5. $14.5 + (-6.8)$

6. $3.8 - 7.6$

7. $-1.6 - (-2.7)$

$14.5 + (-6.8)$

$$\begin{array}{r} 14.5 \\ - 6.8 \\ \hline 7.7 \end{array}$$

7.7

$$\begin{array}{r} 2.7 \\ 1.6 \\ \hline 1.1 \end{array}$$

$-1.6 - (-2.7)$

1.1

8. $-13.1 - 6.5$

9. $20.4 - (-12.9)$

10. $-0.5(3.7)$

11. $-3.4(-6.2)$

12. $7.2(-4.1)$

13. $-9.3(-5.1)$

$-3.4(-6.2)$

21.08

2

3.4 ①

6.2 ①

68

2040

21.08 ②

14. $-24.5 \div 9.8$

15. $18.24 \div (-3.2)$

16. $-7.05 \div 4.7$

$$18.24 \div -3.2$$
$$-5.7$$

Handwritten long division for $18.24 \div 3.2$. The divisor 3.2 is written on the left with a horizontal line above it. The dividend 18.24 is written below the line. A horizontal line is drawn under the 18.24. The first step shows 160 (representing 16.0) subtracted from 18.24, leaving a remainder of 224. The second step shows 224 subtracted from 224, leaving a remainder of 0. The result -5.7 is circled above the division line. Arrows indicate the alignment of the numbers.

Solve the equation. Check your solution.

17. $p + 0.4 = -1.7$

18. $-8.3 + a = -11.2$

19. $5.3 = f + 7.7$

$$7.7 + 5.3 = f + 7.7 + ?$$

$$- 2.4 = f$$

$$\begin{array}{r} 7.7 \\ 5.3 \\ \hline 2.4 \end{array}$$

20. $d - 12.4 = -4.1$

21. $-15.2 = m - 10.9$

22. $20.3 = t - (-3.9)$

23. $-6b = 55.2$

24. $-4.2 = -5.6k$

25. $22.94 = 7.4r$

$$\frac{1}{-5.6} \cdot -4.2 = -5.6k \cdot \frac{1}{-5.6}$$

$$\frac{4.2}{5.6} = k$$

$$k = \frac{3}{4}$$

$$\frac{4.2}{5.6} = k$$

26. $\frac{v}{7.9} = -4$

27. $\frac{h}{0.6} = 1.7$

28. $-10.5 = \frac{c}{-3.2}$

29. The total weight of 2 puppies is 15.03 pounds. One puppy weighs 9.8 pounds. How much does the other puppy weigh?

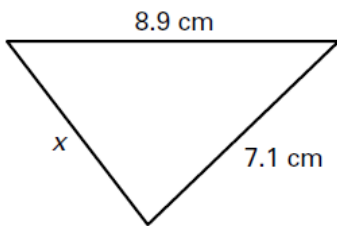
$$9.8 + 9.8 + X = 15.03 \quad \div 9.8$$

$$\begin{array}{r} 15.03 \\ - 9.80 \\ \hline 5.23 \end{array}$$

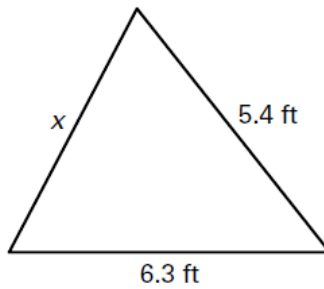
- 30.** At an amusement park, you spend \$7.40 on lunch and \$6.20 on admission. Admission, lunch, and playing arcade games cost \$19. How much did you spend on arcade games?

Find the value of x for the given triangle or rectangle.

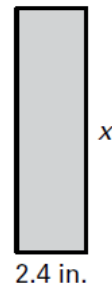
31. Perimeter = 22.2 cm



32. Perimeter = 17.8 ft



33. Area = 20.16 in.²



$$\frac{1}{2} \cdot 2.4 \cdot x = 20.16$$

$$x = \frac{20.16}{1.2}$$

$$x = 16.8$$