

LESSON

Rational Numbers

2

Practice B: Multiplying Rational Numbers

Multiply. Write each answer in simplest form.

1. $8\left(\frac{3}{4}\right)$

2. $-6\left(\frac{9}{18}\right)$

3. $-9\left(\frac{5}{6}\right)$

4. $-6\left(-\frac{7}{12}\right)$

5. $-\frac{5}{18}\left(\frac{8}{15}\right)$

6. $\frac{7}{12}\left(\frac{14}{21}\right)$

7. $-\frac{1}{9}\left(\frac{27}{24}\right)$

8. $-\frac{1}{11}\left(-\frac{3}{2}\right)$

9. $\frac{7}{20}\left(-\frac{15}{28}\right)$

10. $\frac{16}{25}\left(-\frac{18}{32}\right)$

11. $\frac{1}{9}\left(-\frac{18}{17}\right)$

12. $\frac{17}{20}\left(-\frac{12}{34}\right)$

13. $-4\left(2\frac{1}{6}\right)$

14. $\frac{3}{4}\left(1\frac{3}{8}\right)$

15. $3\frac{1}{5}\left(\frac{2}{3}\right)$

16. $-\frac{5}{6}\left(2\frac{1}{2}\right)$

Multiply.

17. $-2(-5.2)$

18. $0.53(0.04)$

19. $(-7)(-3.9)$

20. $-2(8.13)$

21. $0.02(-4.62)$

22. $0.5(-7.8)$

23. $(-0.41)(-8.5)$

24. $(-8)(6.3)$

25. $15(-0.05)$

26. $(-3.04)(-1.7)$

27. $10(-0.09)$

28. $(-0.8)(-0.15)$

29. Travis painted for $6\frac{2}{3}$ hours. He received \$27 an hour for his work. How much was Travis paid for doing this painting job?

LESSON

Rational Numbers

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Practice B: Dividing Rational Numbers

Divide. Write each answer in simplest form.

1. $\frac{1}{5} \div \frac{3}{10}$

2. $-\frac{5}{8} \div \frac{3}{4}$

3. $\frac{1}{4} \div \frac{1}{8}$

4. $-\frac{2}{3} \div \frac{4}{15}$

5. $1\frac{2}{9} \div 1\frac{2}{3}$

6. $-\frac{7}{10} \div \left(\frac{2}{5}\right)$

7. $\frac{6}{11} \div \frac{3}{22}$

8. $\frac{4}{9} \div \left(-\frac{8}{15}\right)$

9. $\frac{3}{8} \div -15$

10. $-\frac{5}{6} \div 12$

11. $6\frac{1}{2} \div 1\frac{5}{8}$

12. $-\frac{9}{10} \div 6$

Find each quotient.

13. $24.35 \div 0.5$

14. $2.16 \div 0.04$

15. $3.16 \div 0.02$

16. $7.32 \div 0.3$

17. $87.36 \div 0.6$

18. $79.36 \div 0.8$

19. $4.27 \div 0.007$

20. $63.81 \div 0.9$

21. $1.23 \div 0.003$

22. $62.46 \div 0.09$

23. $21.12 \div 0.4$

24. $82.68 \div 0.06$

Evaluate each expression for the given value of the variable.

25. $\frac{18}{x}$ for $x = 0.12$

26. $\frac{10.8}{x}$ for $x = 0.03$

27. $\frac{9.18}{x}$ for $x = -1.2$

28. A can of fruit contains $3\frac{1}{2}$ cups of fruit. The suggested serving size is $\frac{1}{2}$ cup. How many servings are in the can of fruit?

LESSON
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Rational Numbers

Practice B: Solving Equations with Rational Numbers

Solve.

1. $x + 6.8 = 12.19$ 2. $y - 10.24 = 5.3$ 3. $0.05w = 6.25$

4. $\frac{a}{9.05} = 8.2$ 5. $-12.41 + x = -0.06$ 6. $\frac{d}{-8.4} = -10.2$

7. $-2.89 = 1.7m$ 8. $n - 8.09 = -11.65$ 9. $\frac{x}{5.4} = -7.18$

10. $\frac{7}{9} + x = 1\frac{1}{9}$ 11. $\frac{6}{11}y = -\frac{18}{22}$ 12. $\frac{7}{10}d = \frac{21}{20}$

13. $x - \left(-\frac{9}{14}\right) = \frac{5}{7}$ 14. $x - \frac{15}{21} = 2\frac{6}{7}$ 15. $-\frac{8}{15}a = \frac{9}{10}$

16. A recipe calls for $2\frac{1}{3}$ cups of flour and $1\frac{1}{4}$ cups of sugar. If the recipe is tripled, how much flour and sugar will be needed?

17. Daniel filled the gas tank in his car with 14.6 gal of gas. He then drove 284.7 mi before needing to fill up his tank with gas again. How many miles did the car get to a gallon of gasoline?

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LESSON

Ratios, Proportions, and Similarity

2

Practice B: Solving Proportions

Tell whether the ratios are proportional.

1. $\frac{3}{4} \stackrel{?}{=} \frac{9}{12}$

2. $\frac{9}{24} \stackrel{?}{=} \frac{18}{48}$

3. $\frac{16}{24} \stackrel{?}{=} \frac{10}{18}$

4. $\frac{13}{25} \stackrel{?}{=} \frac{26}{50}$

5. $\frac{10}{32} \stackrel{?}{=} \frac{16}{38}$

6. $\frac{20}{36} \stackrel{?}{=} \frac{50}{90}$

7. $\frac{20}{28} \stackrel{?}{=} \frac{28}{36}$

8. $\frac{14}{42} \stackrel{?}{=} \frac{16}{36}$

9. A karate team had 6 girls and 9 boys. Then 2 more girls and 3 more boys joined the team. Did the ratio of girls to boys stay the same? Explain.
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10. Janessa bought 4 stamps for \$1.48. At this rate, how much would 10 stamps cost?
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11. Janelle can mow 5 lawns in 36 minutes. At this rate, how long will it take her to mow 11 lawns?
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12. An animal shelter wants their ratio of dogs to cats to be 3:2. If the animal shelter has 78 dogs, how many cats should they have?
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13. On a field trip, the ratio of teachers to students must be 2:9. If there are 81 students on the field trip, how many teachers must there be?
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14. A gallery owner is hanging up 444 pictures for an art exhibit. She has put up 37 pictures in 9 minutes. If she continues at the same rate how many more minutes will it take her to hang the rest of the pictures?
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