


4.5 Exercises

FOR
EXTRA
HELP


 Addison-Wesley
Math Tutor Center

 MathXL

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Solutions
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Divide. See Examples 1 and 4.

1. $7 \overline{)27.3}$

2. $8 \overline{)50.4}$

3. $\frac{4.23}{9}$

4. $\frac{1.62}{6}$

5. $0.05 \overline{)20.01}$

6. $0.08 \overline{)16.04}$

7. $1.5 \overline{)54}$

8. $2.4 \overline{)132}$

Use the fact that $108 \div 18 = 6$ to work Exercises 9–12 simply by moving decimal points.

9. $0.108 \div 1.8$

10. $10.8 \div 18$

11. $0.018 \overline{)108}$

12. $0.18 \overline{)1.08}$


Divide. Round quotients to the nearest hundredth if necessary. See Examples 3 and 4.

13. $4.6 \overline{)116.38}$

14. $2.6 \overline{)4.992}$

15. $\frac{3.1}{0.006}$

16. $\frac{1.7}{0.09}$

 Divide. Round quotients to the nearest thousandth.

17. $240 \div 9.88$

18. $7643 \div 5.36$

19. $0.034 \overline{)342.81}$

20. $0.043 \overline{)1748.4}$

RELATING CONCEPTS (EXERCISES 21–22) For Individual or Group Work

Look for patterns as you work Exercises 21 and 22 in order.

21. Do these division problems:

$3.77 \div 10 = \underline{\hspace{2cm}}$ $9.1 \div 10 = \underline{\hspace{2cm}}$

$0.886 \div 10 = \underline{\hspace{2cm}}$ $30.19 \div 10 = \underline{\hspace{2cm}}$

$406.5 \div 10 = \underline{\hspace{2cm}}$ $6625.7 \div 10 = \underline{\hspace{2cm}}$

- (a) What pattern do you see? Write a “rule” for dividing by 10. What do you think the rule is for dividing by 100? by 1000? Write the rules and try them out on the numbers above.

- (b) Compare your rules to the ones you wrote in Section 4.4, Exercise 21. How are they different?

22. Do these division problems:

$40.2 \div 0.1 = \underline{\hspace{2cm}}$ $7.1 \div 0.1 = \underline{\hspace{2cm}}$

$0.339 \div 0.1 = \underline{\hspace{2cm}}$ $15.77 \div 0.1 = \underline{\hspace{2cm}}$

$46 \div 0.1 = \underline{\hspace{2cm}}$ $873 \div 0.1 = \underline{\hspace{2cm}}$

- (a) What pattern do you see? Write a “rule” for dividing by 0.1. What do you think the rule is for dividing by 0.01? by 0.001? Write the rules and try them out on the numbers above.

- (b) Compare your rules to the ones you wrote in Section 4.4, Exercise 22. How are they different?

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Decide whether each answer is reasonable or unreasonable by rounding the numbers and estimating the answer. If the exact answer is not reasonable, find the correct answer. See Example 5.

23. $37.8 \div 8 = 47.25$

Estimate:

24. $345.6 \div 3 = 11.52$

Estimate:

25. $54.6 \div 48.1 = 1.135$

Estimate:

26. $2428.8 \div 4.8 = 50.6$

Estimate:

27. $307.02 \div 5.1 = 6.2$

Estimate:

28. $395.415 \div 5.05 = 78.3$

Estimate:

29. $9.3 \div 1.25 = 0.744$

Estimate:

30. $78 \div 14.2 = 0.182$

Estimate:

Solve each application problem. Round money answers to the nearest cent, if necessary.

31. Rob discovered that his daughter's favorite brand of tights are on sale. He decided to buy one pair as a surprise for her. How much did he pay?



32. The bookstore has a special price on notepads. How much did Randall pay for one notepad?



33. It will take 21 equal monthly payments for Aimee to pay off her credit card balance of \$1408.66. How much is she paying each month?

34. Marcella Anderson bought 2.6 meters of suede fabric for \$18.19. How much did she pay per meter?

35. Adrian Webb bought 619 bricks to build a barbecue pit, paying \$185.70. Find the cost per brick. (*Hint:* Cost per brick means the cost for one brick.)

36. Lupe Wilson is a newspaper distributor. Last week she paid the newspaper \$130.51 for 842 copies. Find the cost per copy.