Chapter Review/Test

VOCABULARY

1. A(n) _____ is a decimal quotient that contains a repeating block of digits.
2. A(n) _____ can be written by using exponents.
3. A(n) _____ is a decimal quotient with a remainder of zero.

Vocabulary
- decimal
- power of 10
- terminating decimal
- repeating decimal

CONCEPTS AND SKILLS

Find each product. Estimate first. (Lesson 2, pp. 152–154)

4. $\$8.13 \times 42$
5. 13.6×715.6
6. 51.7×4.32
7. 8.5×3.8
8. 18.4×0.7

Find each product or quotient, using mental math. (Lesson 3, pp. 156–158)

9. $8{,}490 \div 10^3$
10. $74{,}300 \times 10^{-1}$
11. $67.8 \div 10^2$
12. 49.17×10^0

Divide. Then check your work. (Lessons 4–5, pp. 160–163)

13. $1.4\overline{)4.2}$
14. $6\overline{)0.81}$
15. $2.4\overline{)6.024}$
16. $3.4\overline{)\$640.22}$
17. $12\overline{)146.4}$
18. $41.7 \div 15$
19. $55.44 \div 1.2$
20. $41.08 \div 5.2$
21. $0.195 \div 0.15$

Write each fraction as a decimal. Use a bar as needed. (Lesson 6, pp. 164–165)

22. $\frac{5}{11}$
23. $\frac{9}{20}$
24. $\frac{2}{11}$
25. $\frac{11}{12}$
26. $\frac{7}{9}$

Write each fraction as a decimal, then as a percent. (Lesson 6, pp. 164–165)

27. $\frac{3}{5}$
28. $\frac{6}{25}$
29. $\frac{8}{20}$
30. $\frac{5}{50}$
31. $\frac{7}{10}$

PROBLEM SOLVING

Solve. (Lesson 7, pp. 166–169)

32. A relay race is 3.2 miles long. There are 4 runners on each team. If each runner runs $\frac{1}{4}$ of the course, how many miles will each person run?
33. The tennis team is having 8 tennis rackets restrung. The total cost is $319.60. What is the average cost per racket for restringing?

Write About It

Show You Understand

Which way does the decimal point move when you are dividing by a power of 10? Explain.

Extra Practice

Set A (Lesson 2, pp. 152–154)

Find each product. Estimate first.

1. 1.9×6
2. $\$3.20 \times 91$
3. 62.4×0.3
4. 654.2×7.55

5. $\begin{array}{r} 12.5 \\ \times\ 2.7 \\ \hline \end{array}$
6. $\begin{array}{r} \$6.03 \\ \times\ 0.41 \\ \hline \end{array}$
7. $\begin{array}{r} 7.1 \\ \times\ 0.254 \\ \hline \end{array}$
8. $\begin{array}{r} 7.82 \\ \times\ 0.21 \\ \hline \end{array}$

Set B (Lesson 3, pp. 156–158)

Use patterns to help you find each product or quotient.

1. $6.7134 \times 10^1 = 67.134$
   $6.7134 \times 10^2 =$
   $6.7134 \times 10^3 =$
2. $93 \times 10^{-1} = 9.3$
   $93 \times 10^{-2} =$
   $93 \times 10^{-3} =$
3. $25.83 \div 10^1 = 2.583$
   $25.83 \div 10^2 =$
   $25.83 \div 10^3 =$

Find each product or quotient, using mental math.

4. $3{,}600 \div 10^2$
5. $42{,}900 \times 10^{-3}$
6. $87.5 \div 10^0$
7. 1.004×10^2

Set C (Lesson 4, pp. 160–161)

Divide. Then check your work.

1. $6\overline{)2.4}$
2. $7\overline{)9.66}$
3. $8\overline{)32.24}$
4. $3\overline{)\$21.60}$

5. $215.82 \div 33$
6. $0.46 \div 4$
7. $923.3 \div 25$
8. $15{,}225 \div 42$

Set D (Lesson 5, pp.162–163)

Divide. Then check your work.

1. $0.5\overline{)2.05}$
2. $1.2\overline{)24.48}$
3. $3.2\overline{)77.28}$
4. $1.8\overline{)806.94}$

5. $931.3 \div 6.7$
6. $7.844 \div 0.74$
7. $2.5688 \div 1.3$
8. $1.960 \div 0.32$

Set E (Lesson 6, pp. 164–165)

Write each fraction as a decimal. Use a bar as needed.

1. $\frac{7}{8}$
2. $\frac{7}{9}$
3. $\frac{2}{5}$
4. $\frac{1}{7}$
5. $\frac{8}{9}$
6. $\frac{17}{20}$
7. $\frac{18}{25}$
8. $\frac{1}{11}$
9. $\frac{1}{25}$
10. $\frac{5}{16}$

Name _____ Date _____

Divide Decimals by Decimals

Find 8.64 ÷ 0.15.

Step 1: Multiply the divisor and the dividend by a power of 10. Move the decimal points the same number of places.

$0.15\overline{)8.64}$

Step 2: Divide as you would a whole number.

Multiply. $15 \times 5 = 75$

Subtract. $86 - 75 = 11$

Compare. $11 < 15$

```
      5
15.)864.
 - 75
   11
```

Step 3: Add zeros to the right of the decimal point as needed. Continue dividing until there's a remainder of 0.

Bring down.

Multiply.

Subtract.

Compare.

```
      57 6
15.)864.0
 - 75
   114
 - 105
     90
 - 90
      0
```

Step 4: Place the decimal point in the quotient directly above the decimal point that you moved in the dividend.

$8.64 \div 0.15 = 57.6$

```
      57.6
15.)864.0
```

Step 5: Check your work.

Multiply the quotient by the divisor.

If your quotient is correct, the product should equal the dividend.

```
  57.6
× 0.15
2880
+ 576
8.640
```

Divide. Then check your work.

1. $0.4\overline{)0.64}$
2. $0.05\overline{)0.38}$
3. $4.8\overline{)8.16}$
4. $6.3\overline{)1.827}$

5. $9.6 \div 3.2$
6. $122.4 \div 3.6$
7. $35.64 \div 4.4$
8. $181.35 \div 3.9$

_____ _____ _____ _____