

Name \_\_\_\_\_

# Dividing by a Decimal

R 2-9

Find  $4.728 \div 0.6$ .

Estimate:  $48 \div 6 = 8$

Count the number of decimal places in the divisor.

$$\begin{array}{r} 6 \overline{)4.728} \end{array}$$

one  
decimal  
place

**Step 1** Move the decimal point to make the divisor a whole number.

$$\begin{array}{r} 6 \overline{)4.728} \end{array}$$

decimal point  
moved to make  
.6 become 6.

**Step 2** Move the decimal point in the dividend the same number of spaces ( $4.728 \times 10 = 47.28$ ).

Then write the decimal point in the quotient at the same place.

$$\begin{array}{r} 6 \overline{)47.28} \end{array}$$

moved    moved  
one        one  
decimal    decimal  
place      place

**Step 3** Divide the same way you do with whole numbers.

$$\begin{array}{r} 7.88 \\ 6 \overline{)47.28} \\ - 42 \downarrow \\ \hline 52 \\ - 48 \downarrow \\ \hline 48 \\ - 48 \\ \hline 0 \end{array}$$

Find each quotient.

1.  $0.7 \overline{)1.75}$

2.  $0.8 \overline{)3.624}$

3.  $1.1 \overline{)0.6391}$

4.  $2.2 \overline{)143}$

5.  $0.09 \overline{)0.05697}$

6.  $0.15 \overline{)1.146}$

7. **Writing in Math** Wendy divided 147 by 0.7. Jan divided 1,470 by 7. Should they both get the same answer? Explain.

---

---

---

# Dividing by a Decimal

Find each quotient.

- |                             |                              |
|-----------------------------|------------------------------|
| 1. $8.4 \div 0.3 =$ _____   | 2. $66.15 \div 0.63 =$ _____ |
| 3. $10.5 \div 1.5 =$ _____  | 4. $86 \div 0.4 =$ _____     |
| 5. $72.8 \div 1.4 =$ _____  | 6. $14.36 \div 0.4 =$ _____  |
| 7. $2.87 \div 0.01 =$ _____ | 8. $78.32 \div 0.22 =$ _____ |

9. **Reasoning** Why would multiplying both the dividend and the divisor by 10 sometimes make a problem easier to solve?

\_\_\_\_\_

\_\_\_\_\_

For each item, find how many times greater the 2002 cost is than the 1960 cost. Round your answer to the nearest hundredth.

Item	1960 Cost	2002 Cost
Movie admission	\$0.75	\$8.50
Regular popcorn	\$0.25	\$3.25
Regular drink	\$0.35	\$2.75

- |                     |                     |                   |
|---------------------|---------------------|-------------------|
| 10. movie admission | 11. regular popcorn | 12. regular drink |
|---------------------|---------------------|-------------------|
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

13. Which item has increased the greatest amount of times from its original cost? \_\_\_\_\_

## Test Prep

14. Divide. Round to the nearest hundredth.  $250.6 \div 1.6$

- A. 156                      B. 156.6                      C. 156.61                      D. 156.63

15. **Writing in Math.** Lynn and Randi got different quotients when they divided 3.60 by 0.12. Whose work is correct? Explain why.

Lynn	Randi
$\begin{array}{r} 0.30 \\ 12 \overline{)3.60} \end{array}$	$\begin{array}{r} 30.0 \\ 12 \overline{)360} \end{array}$

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_