YEAR 8 • DECIMALS

Dividing Decimals by Powers of Ten

Name _____ **Date** _____

Calculate each quotient. Keep track of how the digits' place values change when you divide by 10, 100 or 1000.

A Calculate

Write each quotient.

1. **6.8 ÷ 10** _____
2. **43.2 ÷ 100** _____
3. **5.07 ÷ 1000** _____
4. **0.94 ÷ 10** _____
5. **708 ÷ 100** _____
6. **32.5 ÷ 1000** _____
7. **0.6 ÷ 100** _____
8. **9.03 ÷ 10** _____
9. **125.6 ÷ 1000** _____
10. **70.04 ÷ 100** _____
11. **4.005 ÷ 10** _____
12. **0.028 ÷ 1000** _____

B Check the place-value shift

Complete both parts.

1. **8.34 ÷ 10**
   Quotient _____
   Decimal point shifts left _____ place(s).
2. **52.6 ÷ 100**
   Quotient _____
   Decimal point shifts left _____ place(s).
3. **0.709 ÷ 1000**
   Quotient _____
   Decimal point shifts left _____ place
4. **63 ÷ 1000**
   Quotient _____
   Decimal point shifts left _____ place(s).
5. **4.08 ÷ 100**
   Quotient _____
   Decimal point shifts left _____ place(s).
6. **1.5 ÷ 10**
   Quotient _____
   Decimal point shifts left _____ place

C Find the missing number

1. _____ **÷ 10 = 4.27**
2. **36.5 ÷** _____ **= 0.365**
3. _____ **÷ 1000 = 0.009**
4. **8.04 ÷** _____ **= 0.0804**
5. _____ **÷ 100 = 0.56**
6. **72 ÷** _____ **= 0.072**

D Apply your understanding

1. A 6.4 m ribbon is cut into 10 equal pieces. How long is each piece? Include the unit.

   _____

2. A lab divides 3.75 g of powder equally into 100 samples. How many grams are in each sample?

   _____

3. Kai says **8.2 ÷ 100 = 0.82**. Explain the place-value mistake and write the correct quotient.

   _____