

Name: _____

Period: _____

Date: _____

Math Unit 2: Fractions and Decimals**Lesson 2.6- Dividing Decimals****SWBAT:****Paraphrase:****Essential Question:** How can you divide decimals?

Example 1

a. Find $7.6 \div 4$.**Estimate** $8 \div 4 = 2$

$$\begin{array}{r} 1.9 \\ 4 \overline{)7.6} \\ \underline{-4} \\ 36 \\ \underline{-36} \\ 0 \end{array}$$

Place the decimal point in the quotient above the decimal point in the dividend.

So, $7.6 \div 4 = 1.9$.**Reasonable?** $1.9 \approx 2$ ✓b. Find $4.38 \div 12$.

$$\begin{array}{r} 0.365 \\ 12 \overline{)4.380} \\ \underline{-36} \\ 78 \\ \underline{-72} \\ 60 \\ \underline{-60} \\ 0 \end{array}$$

Place the decimal point in the quotient above the decimal point in the dividend.

Insert a zero and continue to divide.

So, $4.38 \div 12 = 0.365$.**Check** $0.365 \times 12 = 4.38$ ✓

Your Turn

Divide. Use estimation to check your answer.

1. $36.4 \div 2$

2. $22.2 \div 6$

3. $59.64 \div 7$

4. $43.26 \div 14$

5. $6.2 \div 4$

6. $3.12 \div 16$

Example 2

a. Find $18.2 \div 1.4$.

$$1.4 \overline{)18.2}$$

Multiply each number by 10.

$$\begin{array}{r} 13. \\ 14 \overline{)182.} \\ \underline{-14} \\ 42 \\ \underline{-42} \\ 0 \end{array}$$

Place the decimal point above the decimal point in the dividend 182.

So, $18.2 \div 1.4 = 13$.

Check $13 \times 1.4 = 18.2$ ✓

b. Find $0.273 \div 0.39$.

$$0.39 \overline{)0.273}$$

Multiply each number by 100.

$$\begin{array}{r} 0.7 \\ 39 \overline{)27.3} \\ \underline{-27.3} \\ 0 \end{array}$$

So, $0.273 \div 0.39 = 0.7$.

Check $0.7 \times 0.39 = 0.273$ ✓

Your Turn

7. $1.2 \overline{)9.6}$

8. $3.4 \overline{)57.8}$

9. $21.643 \div 2.3$

10. $0.459 \div 0.51$

Example 3

Divide $2.45 \div 0.007$.

$$0.007 \overline{)2.450}$$

Multiply each number by 1000.
Insert a zero in the dividend.

$$\begin{array}{r} 350 \\ 7 \overline{)2450} \\ \underline{-21} \\ 35 \\ \underline{-35} \\ 00 \end{array}$$

Because $0 \div 7 = 0$,
insert a zero in the
quotient.

So, $2.45 \div 0.007 = 350$.

Your Turn

11. $3.8 \div 0.16$

12. $15.6 \div 0.78$

13. $7.2 \div 0.048$

14. $0.18 \div 0.003$

Notes /
Questions