Dividing Decimals by Whole Numbers

MAIN IDEA

• Divide decimals by whole numbers.

EXAMPLE **Divide a Decimal by a 1-Digit Number**

1 Find $45.9 \div 3$.

Estimate $\boxed{} \div 3 = \boxed{}$

$\boxed{}$ ← Place the decimal point directly above the decimal point in the dividend.

$$3\overline{)45.9}$$
$$-3$$
$$\overline{15}$$
$$-15$$
$$\overline{09}$$
$$-9$$
$$\overline{0}$$

$45.9 \div 3 = \boxed{}$. Compared to the estimate, the quotient is reasonable.

EXAMPLE **Divide a Decimal by a 2-Digit Number**

2 Find $8.69 \div 22$.

Estimate $10 \div 20 = 0.5$

$\boxed{}$ ← Place the decimal point.

$$22\overline{)8.690}$$

Annex a zero and continue dividing.

$$-\boxed{}$$
$$\overline{209}$$
$$-\boxed{}$$
$$\overline{110}$$
$$-\boxed{}$$
$$\overline{0}$$

$8.69 \div 22 = \boxed{}$. Compared to the estimate, the quotient is reasonable.

ORGANIZE IT

Under Lesson 3-7 of your Foldable, describe where to place the decimal point when dividing a decimal by a whole number.

Chapter 3:
Operations
with
Decimals

Check Your Progress **Divide.**

a. $50.8 \div 4$

$\boxed{}$

b. $8.64 \div 24$

$\boxed{}$

EXAMPLE

3 **TEST EXAMPLE** During a science experiment, Nita measured the mass of four unknown samples. Her data table is shown below.

Sample 1	6.23 g
Sample 2	5.81 g
Sample 3	5.93 g
Sample 4	6.47 g

What is the mean mass in grams of the four samples?

Read the Item
To find the mean mass of the four samples, add to find the total mass then divide the sum by 4.

Solve the Item   **Fill in the Grid**

$6.23 + 5.81 + 5.93 + 6.47 = $ ☐

☐   Place the decimal point.

$$4\overline{)24.44}$$
$$-24$$
$$\overline{04}$$
$$-04$$
$$\overline{04}$$
$$-04$$
$$\overline{0}$$

The mean mass of the four samples is ☐ grams.

Check Your Progress **GRIDDED RESPONSE**
Mrs. Lindley's class is having a pizza party. The total cost of the pizzas is to be divided equally among 15 people. If the cost is $45.60, find the cost each person will pay in dollars.

HOMEWORK ASSIGNMENT

Page(s):

Exercises: