

Name _____

Divide Decimals by Whole Numbers

I Can divide decimals by whole numbers.

Florida's B.E.S.T.

- Number Sense & Operations 5.NSO.2.4, 5.NSO.2.5
- Mathematical Thinking & Reasoning MTR.1.1, MTR.3.1, MTR.4.1, MTR.5.1, MTR.6.1, MTR.7.1



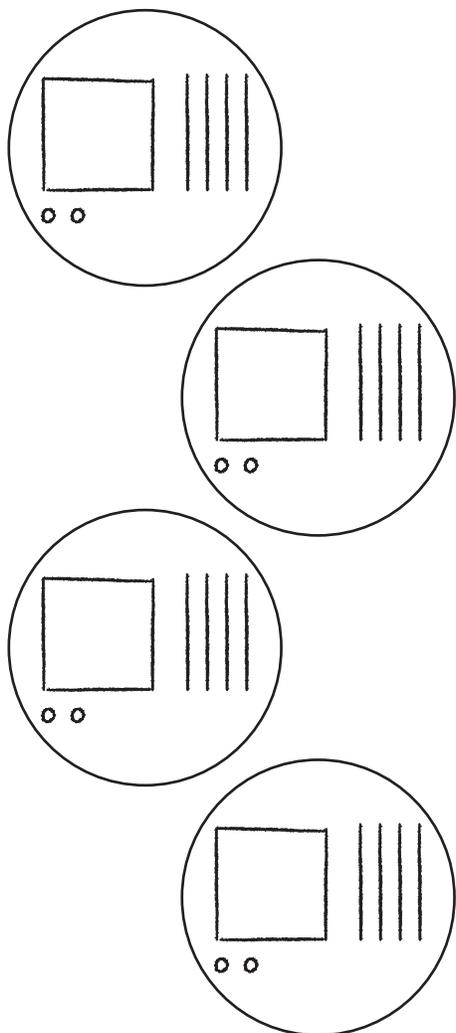
UNLOCK the Problem

In a swimming relay, each swimmer swims an equal part of the total distance. Brianna and 3 other swimmers won a relay in 5.68 minutes. What is the average time each relay team member swam?

- How many swimmers are part of the relay team?

One Way Use place value.

MODEL



THINK AND RECORD

STEP 1 Divide the ones.

$$\begin{array}{r} 1 \\ 4 \overline{)5.68} \\ \underline{-4} \\ \end{array}$$

Divide. 5 ones \div 4

Multiply. 4×1 one

Subtract. 5 ones $-$ 4 ones

Check. _____ one(s) cannot be shared among 4 groups without regrouping.

STEP 2 Divide the tenths.

$$\begin{array}{r} 1 \\ 4 \overline{)5.68} \\ \underline{-4} \\ \end{array}$$

Divide. _____ tenths \div 4

Multiply. $4 \times$ _____ tenths

Subtract. _____ tenths $-$ _____ tenths

Check. _____ tenth(s) cannot be shared among 4 groups.

STEP 3 Divide the hundredths.

$$\begin{array}{r} 1 \\ 4 \overline{)5.68} \\ \underline{-4} \\ \\ \\ \end{array}$$

Divide. 8 hundredths \div 4

Multiply. $4 \times$ _____ hundredths

Subtract. _____ hundredths $-$ _____ hundredths

Check. _____ hundredth(s) cannot be shared among 4 groups.

Place the decimal point in the quotient to separate the ones and the tenths.

So, each girl swam an average of _____ minutes.

Another Way Use an estimate.

Divide as you would with whole numbers.

Divide. $\$40.89 \div 47$

- Estimate the quotient. $4,000 \text{ hundredths} \div 50 = 80 \text{ hundredths}$, or $\$0.80$
- Divide the tenths.
- Divide the hundredths. When the remainder is zero and there are no more digits in the dividend, the division is complete.
- Use your estimate to place the decimal point. Place a zero to show there are no ones.

$$\begin{array}{r} \\ 47 \overline{)40.89} \end{array}$$

So, $\$40.89 \div 47$ is _____.

- **MTR** Explain how you used the estimate to place the decimal point in the quotient.

Try This! Divide. Use multiplication to check your work.

$$\begin{array}{r} \\ 23 \overline{)79.35} \end{array}$$

Check.

$$\begin{array}{r} \\ \times \quad 23 \\ \hline \\ + \\ \hline \end{array}$$

Share and Show

Math Board

Write the quotient with the decimal point placed correctly.

1. $4.92 \div 2 = 246$ _____

2. $50.16 \div 38 = 132$ _____