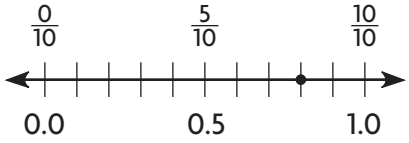
Relate Tenths and Decimals

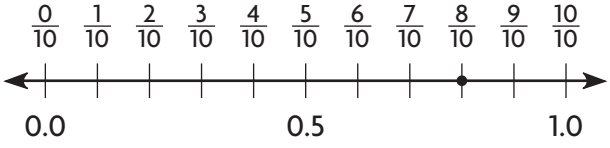
Write the fraction and the decimal that are shown by the point on the number line.



Step 1 Count the number of equal parts of the whole shown on the number line. There are ten equal parts.

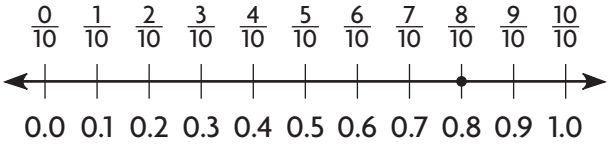
This tells you that the number line shows tenths.

Step 2 Label the number line with the missing fractions. What fraction is shown by the point on the number line?



The fraction shown by the point on the number line is $\frac{8}{10}$.

Step 3 Label the number line with the missing decimals. What decimal is shown by the point on the number line?

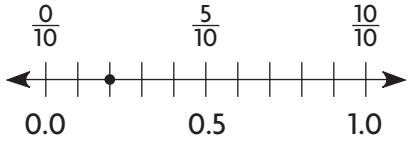


The decimal shown by the point on the number line is **0.8**.

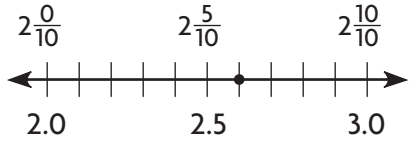
So, the fraction and decimal shown by the point on the number line are $\frac{8}{10}$ and **0.8**.

Write the fraction or mixed number and the decimal shown by the model.

1.



2.

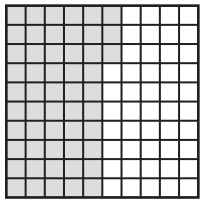


_____ _____

Name _____

Relate Hundredths and Decimals

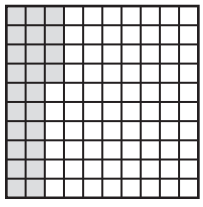
Write the fraction or mixed number and the decimal shown by the model.



Step 1 Count the number of shaded squares in the model and the total number of squares in the whole model.	Number of shaded squares: 53 Total number of squares: 100
Step 2 Write a fraction to represent the part of the model that is shaded.	$\frac{\text{Number of Shaded Squares}}{\text{Total Number of Squares}} = \frac{53}{100}$ The fraction shown by the model is $\frac{53}{100}$.
Step 3 Write the fraction in decimal form.	**Think:** The fraction shown by the model is $\frac{53}{100}$. 0.53 names the same amount as $\frac{53}{100}$. The decimal shown by the model is 0.53.
The fraction and decimal shown by the model are $\frac{53}{100}$ and 0.53.	

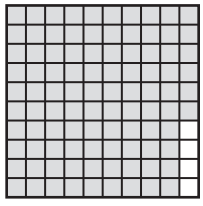
Write the fraction or mixed number and the decimal shown by the model.

1.



_____

2.



_____

Name _____

Equivalent Fractions and Decimals

Lori ran $\frac{20}{100}$ mile. How many tenths of a mile did she run?

Write $\frac{20}{100}$ as an equivalent fraction with a denominator of 10.

Step 1 **Think:** 10 is a common factor of the numerator and the denominator.

Step 2 Divide the numerator and denominator by 10.

$$\frac{20}{100} = \frac{20 \div 10}{100 \div 10} = \frac{2}{10}$$

So, Lori ran $\frac{2}{10}$ mile.

Use a place-value chart.

Step 1 Write $\frac{20}{100}$ as an equivalent decimal.

Ones	·	Tenths	Hundredths
0	·	2	0

Step 2 **Think:** 20 hundredths is 2 tenths 0 hundredths

Ones	·	Tenths
0	·	2

So, Lori ran 0.2 mile.

Write the number as hundredths in fraction form and decimal form.

1. $\frac{9}{10}$ _____

2. 0.6 _____

3. $\frac{4}{10}$ _____

Write the number as tenths in fraction form and decimal form.

4. $\frac{70}{100}$ _____

5. $\frac{80}{100}$ _____

6. 0.50 _____

Relate Fractions, Decimals, and Money

Write the total money amount. Then write the amount as a fraction and as a decimal in terms of a dollar.

Step 1 Count the value of coins from greatest to least.
Write the total money amount.

$0.25 → $0.35 → $0.40 → $0.45 → $0.50

Step 2 Write the total money amount as a fraction of a dollar.

The total money amount is $0.50, which is the same as 50 cents.

Think: There are 100 cents in a dollar.

So, the total amount written as a fraction of a dollar is:

$$\frac{50 \text{ cents}}{100 \text{ cents}} = \frac{50}{100}$$

Step 3 Write the total money amount as a decimal.

Think: I can write $0.50 as 0.50.

The total money amount is $\frac{50}{100}$ written as a fraction of a dollar, and 0.50 written as a decimal.

Write the total money amount. Then write the amount as a fraction or a mixed number and as a decimal in terms of a dollar.

1.

2.

Name _____

Problem Solving • Money

Use the strategy *act it out* to solve the problem.

Jessica, Brian, and Grace earned $7.50. They want to share the money equally. How much will each person get?

Read the Problem	Solve the Problem
What do I need to find? I need to find the amount of money each person should get.	• Show the total amount, $7.50, using 7 one-dollar bills and 2 quarters. 
What information do I need to use? I need to use the total amount, $7.50, and divide it by 3, the number of people sharing the money equally.	• Share the one-dollar bills equally.  There is 1 one-dollar bill left.
How will I use the information? I will use dollar bills and coins to model the total amount and act out the problem.	• Change the dollar bill that is left for 4 quarters. Now there are 6 quarters. • Share the quarters equally.  So, each person gets 2 one-dollar bills and 2 quarters, or $2.50.

1. Jacob, Dan, and Nathan were given $6.90 to share equally. How much money will each boy get?

_____

2. Becky, Marlis, and Hallie each earned $2.15 raking leaves. How much did they earn together?

_____

Name _____

Add Fractional Parts of 10 and 100

Sam uses 100 glass beads for a project. Of the beads, $\frac{35}{100}$ are gold and $\frac{4}{10}$ are silver. What fraction of the glass beads are gold or silver?

Add $\frac{35}{100}$ and $\frac{4}{10}$.

Step 1 Decide on a common denominator. Use 100.

Step 2 Write $\frac{4}{10}$ as an equivalent fraction with a denominator of 100.

$$\frac{4}{10} = \frac{4 \times 10}{10 \times 10} = \frac{40}{100}$$

Step 3 Add $\frac{35}{100}$ and $\frac{40}{100}$.

$$\frac{35}{100} + \frac{40}{100} = \frac{75}{100}$$

← Add the numerators.
← Use 100 as the denominator.

So, $\frac{75}{100}$ of the glass beads are gold or silver.

Add $0.26 and $0.59.

Step 1 Write each amount as a fraction of a dollar.

$0.26 = $\frac{26}{100}$ of a dollar $0.59 = $\frac{59}{100}$ of a dollar

Step 2 Add $\frac{26}{100}$ and $\frac{59}{100}$.

$$\frac{26}{100} + \frac{59}{100} = \frac{85}{100}$$

← Add the numerators.
← 100 is the common denominator.

Step 3 Write the sum as a decimal.

$$\frac{85}{100} = 0.85$$

So, $0.26 + $0.59 = $0.85.

Find the sum.

1. $\frac{75}{100} + \frac{2}{10} =$ _____

2. $0.73 + $0.25 = $ _____

$$\frac{73}{100} + \frac{25}{100} = \frac{\quad}{\quad}$$

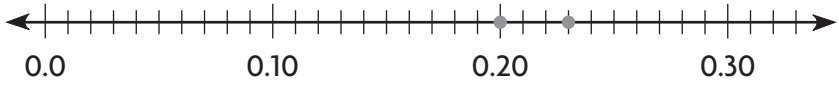
Name _____

Compare Decimals

Alfie found 0.2 of a dollar and Gemma found 0.23 of a dollar.
Which friend found more money?

To compare decimals, you can use a number line.

Step 1 Locate each decimal on a number line.



Step 2 The number farther to the right is greater.

0.23 > **0.2**, so **Gemma** found more money.

To compare decimals, you can compare equal-size parts.

Step 1 Write 0.2 as a decimal in hundredths.

0.2 is 2 tenths, which is equivalent to **20** hundredths.

0.2 = **0.20**

Step 2 Compare.

23 hundredths **is greater than** 20 hundredths,
so **0.23** > **0.2**.

So, **Gemma** found more money.

Compare. Write <, >, or =.

1. 0.17 ◯ 0.13 **2.** 0.8 ◯ 0.08 **3.** 0.36 ◯ 0.63 **4.** 0.4 ◯ 0.40

5. 0.75 ◯ 0.69 **6.** 0.3 ◯ 0.7 **7.** 0.45 ◯ 0.37 **8.** 0.96 ◯ 0.78