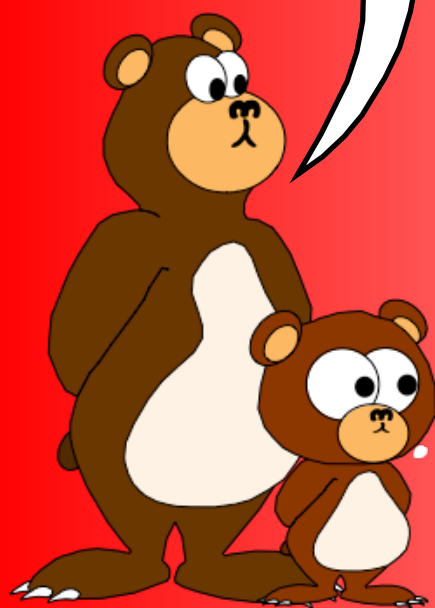




Write these fractions as decimals, then tap the beehive to check your answer.



$$\frac{7}{100}$$

$$\frac{1}{10}$$

$$\frac{9}{10}$$

$$\frac{13}{100}$$

$$\frac{3}{100}$$

$$\frac{23}{100}$$

$$\frac{11}{100}$$

$$\frac{6}{10}$$

Help! The place-values are all mixed up! Drag the place-values to put them back where they belong.

_____ • _____

hundredths

tens

tenths

ones

million	hundred thousand	ten thousand	thousand	hundred	ten	unit	point	$\frac{1}{10}$ tenth	$\frac{1}{100}$ hundredth	$\frac{1}{1000}$ thousandth
							•			
							•			
							•			
							•			
							•			
							•			
							•			
							•			
							•			
							•			
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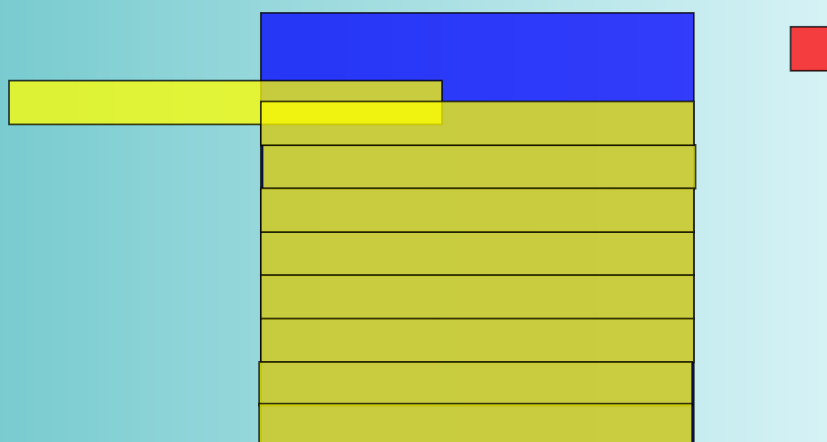
Write the numbers below in the correct boxes.

129.12
143.892
110,234.123
11.890
897.99

You can use the base ten blocks to show different decimals!

Yellow is .10 or Tenths or $\frac{1}{10}$

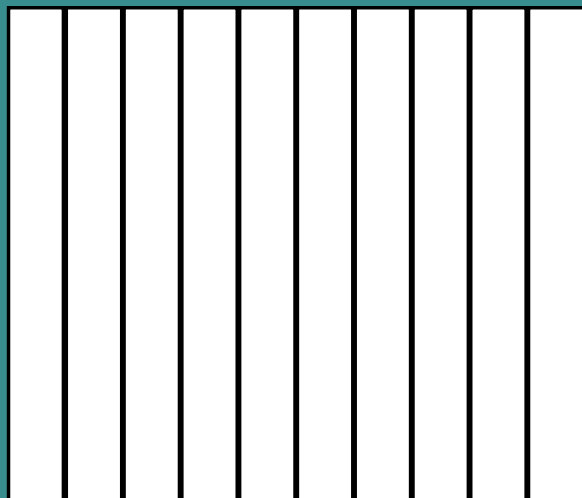
Red is .10 or $\frac{1}{10}$ of the yellow and .01 or $\frac{1}{100}$ of the blue



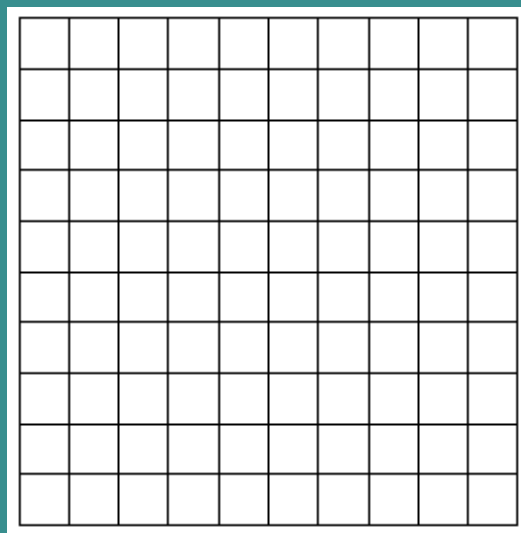
Tenths and Hundredths

Shade the place value charts to show the following fractions.

$$\frac{5}{10}$$



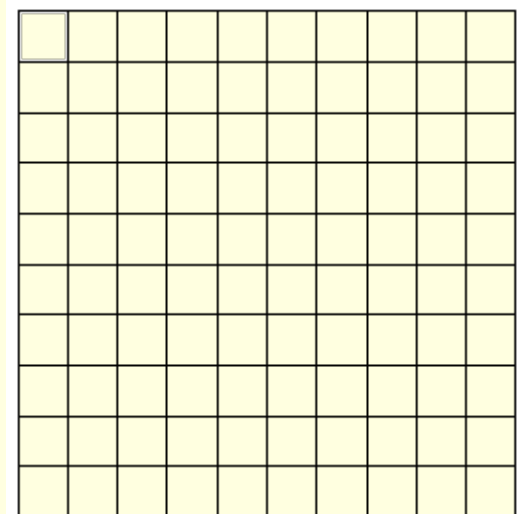
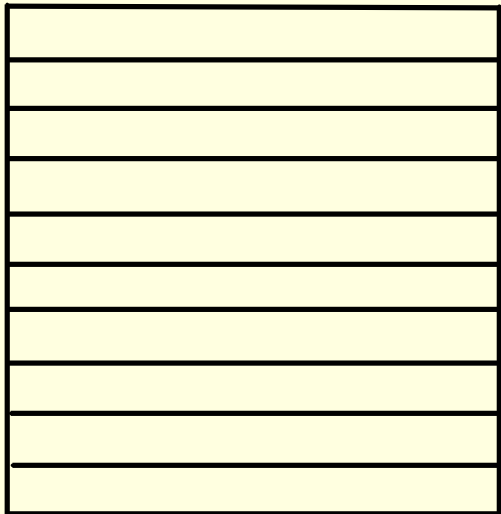
$$\frac{25}{100}$$



Tenths and Hundredths

Shade the place value chart below to show $\frac{3}{10}$.

$$\frac{3}{10}$$



Drag the hundreds chart on top of the tens chart. What is the new fraction?

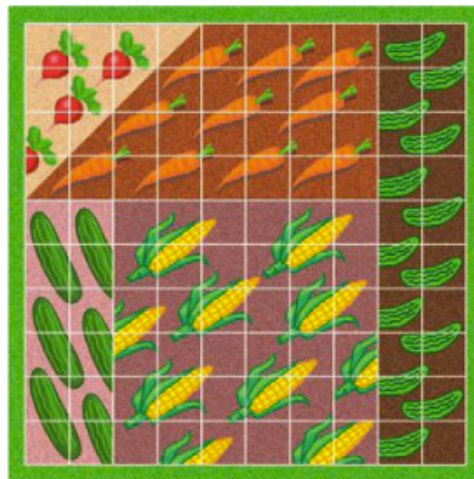
$$\frac{3}{10} =$$

LESSON

4

Relating Fractions to Decimals

What fraction of the garden is planted with each vegetable?
How many different ways can you write each fraction?



Connect

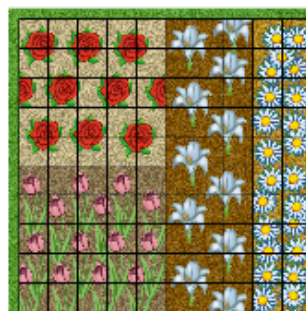
- This is Jake and Willa's design of a flower garden.

$\frac{25}{100}$, or $\frac{1}{4}$ of the garden is planted with roses.

$\frac{25}{100}$, or $\frac{1}{4}$ of the garden is planted with tulips.

$\frac{30}{100}$, or $\frac{3}{10}$ of the garden is planted with lilies.

$\frac{20}{100}$, or $\frac{2}{10}$ of the garden is planted with daisies.

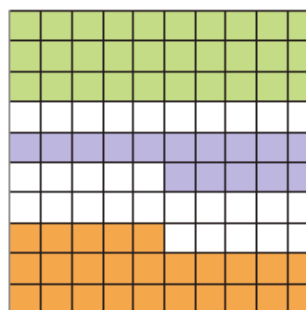


- You can write fractions with denominators of 10 and 100 as decimals.

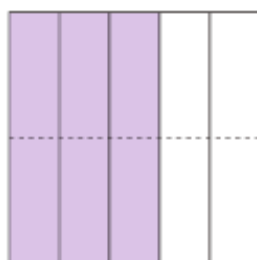
$\frac{3}{10}$ is 3 tenths, or 0.3.

$\frac{15}{100}$ is 15 hundredths, or 0.15.

$\frac{25}{100}$ is 25 hundredths, or 0.25.



- For some fractions, we can write an equivalent fraction with a denominator of 10 or 100. We can then write the fraction as a decimal.



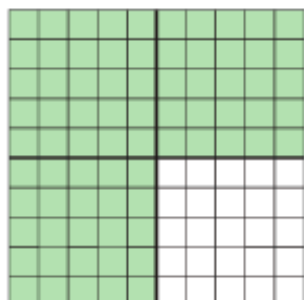
$$\frac{3}{5} = \frac{6}{10}$$

The diagram shows a circular arrow from 3 to 6 labeled $\times 2$ and from 5 to 10 labeled $\times 2$.

$\frac{3}{5}$ is equivalent to $\frac{6}{10}$.

$\frac{6}{10}$ is 6 tenths, or 0.6.

So, $\frac{3}{5}$ and 0.6 are equivalent.



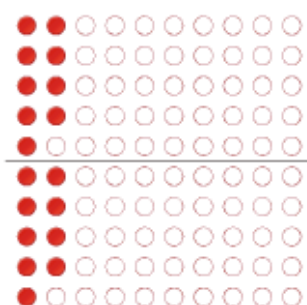
$$\frac{3}{4} = \frac{75}{100}$$

The diagram shows a circular arrow from 3 to 75 labeled $\times 25$ and from 4 to 100 labeled $\times 25$.

$\frac{3}{4}$ is equivalent to $\frac{75}{100}$.

$\frac{75}{100}$ is 75 hundredths, or 0.75.

So, $\frac{3}{4}$ and 0.75 are equivalent.



$$\frac{9}{50} = \frac{18}{100}$$

$\times 2$
 $\times 2$

$\frac{9}{50}$ is equivalent to $\frac{18}{100}$.

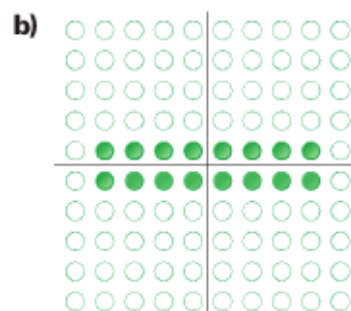
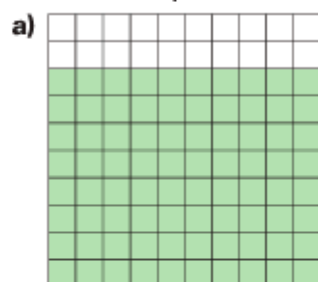
$\frac{18}{100}$ is 18 hundredths, or 0.18.

So, $\frac{9}{50}$ and 0.18 are equivalent.

Practice

1. Write a fraction and a decimal to describe:

- the shaded part of each picture
- the white part of each picture



2. Use Base Ten Blocks to show each decimal.
Sketch the blocks you used.
- a) 0.3 b) 0.07 c) 0.8 d) 0.34

3. Write each decimal in question 2 as a fraction.

4. Shade a hundredths grid to show each decimal.
Then write an equivalent decimal.

- a) 0.8 b) 0.40 c) 0.90 d) 0.2

5. Write each fraction as a decimal.

- a) $\frac{37}{100}$ b) $\frac{5}{10}$ c) $\frac{9}{100}$ d) $\frac{30}{100}$

6. Write each amount of money as a fraction of a dollar,
then as a decimal.

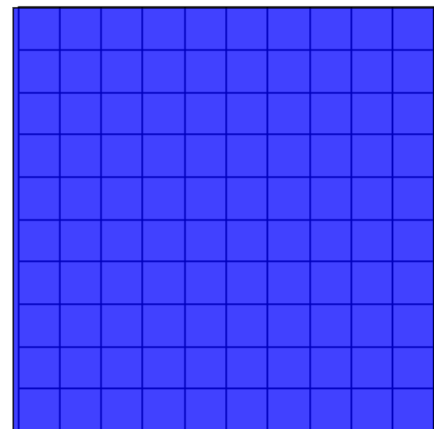
- a) 20¢ b) 5¢ c) 25¢ d) 61¢ e) 95¢

7. Vijay has $\frac{1}{20}$ of a dollar in his pocket.
What coins might he have?



8. Use Base Ten Blocks and a grid to represent each fraction.
Then write each fraction as a decimal.

- a) $\frac{1}{2}$ b) $\frac{7}{25}$ c) $\frac{9}{10}$ d) $\frac{3}{5}$



9. Represent each fraction on a hundredths grid.
Then write each fraction as a decimal.

a) $\frac{1}{4}$

b) $\frac{4}{5}$

c) $\frac{3}{50}$

d) $\frac{11}{20}$



10. Use counters to represent each fraction.
Then write each fraction as a decimal.

a) $\frac{4}{25}$

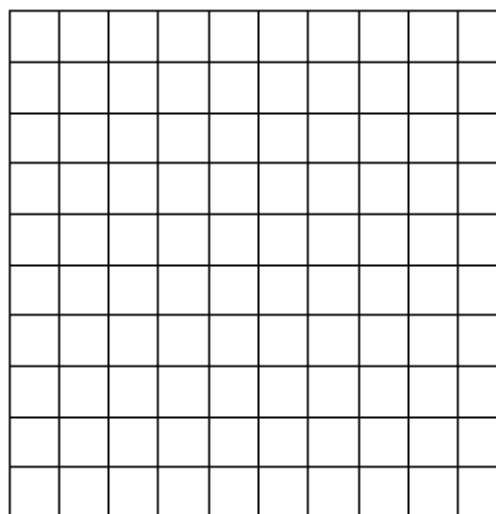
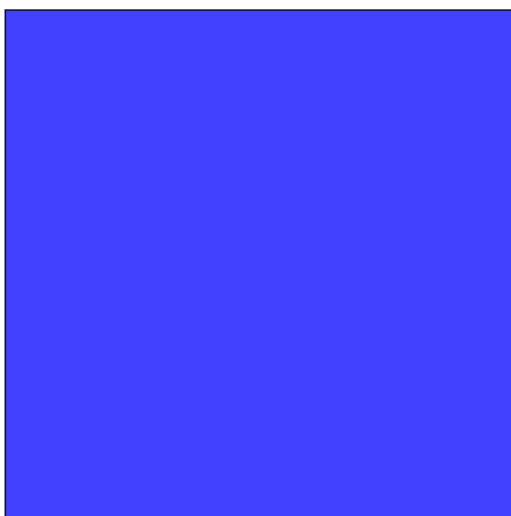
b) $\frac{3}{4}$

c) $\frac{2}{5}$

d) $\frac{7}{20}$



11. Do $\frac{3}{5}$ and 0.35 name the same amount?
Use pictures and words to explain how you know.



Math Journal Question

Reflect

Which fractions can you write easily as decimals? Why?
Use examples in your explanation.