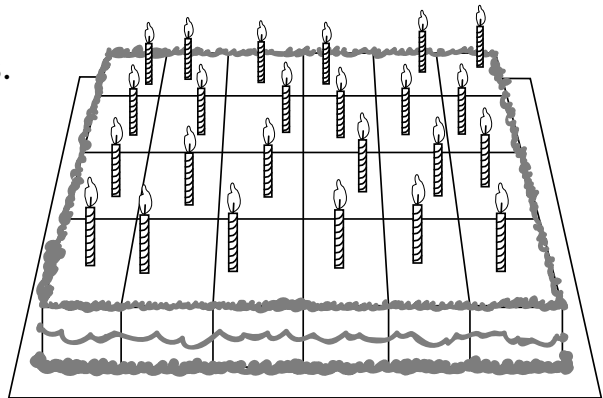


Name Answer Key

1

Here is a birthday cake cut into pieces.



How many pieces do you see?

ANSWER: 24 pieces

COMMENTS & EXTENSIONS: Trace your hand on graph paper. How many of the graph paper squares does your hand cover? Which is bigger, your hand or your foot? Trace your foot and count the squares it covers.

Try This

- Model the first fraction using Fraction Tower Cubes.
- Use hints to model an equivalent fraction.
- Fill in the answer blanks.

1. $\frac{3}{4} = \frac{6}{8}$

3 yellow = 6 blue

3. $\frac{8}{12} = \frac{4}{6}$

8 black = 4 teal

5. $\frac{3}{4} = \frac{9}{12}$

7. $\frac{1}{2} = \frac{5}{10}$

9. $\frac{2}{8} = \frac{1}{4}$

2. $\frac{1}{3} = \frac{4}{12}$

1 orange = 4 black

4. $\frac{4}{10} = \frac{2}{5}$

4 purple = 2 green

6. $\frac{2}{3} = \frac{4}{6}$

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

10. $\frac{6}{12} = \frac{2}{4}$

Model
first
fraction.
Model
equivalent
fraction.
Challenge

Find an equivalent fraction without using cubes. Show your work.

$\frac{1}{2} = \frac{10}{20}$

$\frac{1}{4} = \frac{4}{16}$

$\frac{2}{3} = \frac{6}{9}$

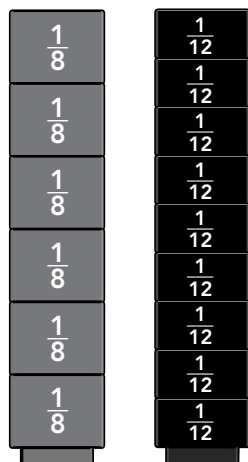
$\frac{4}{20} = \frac{1}{5}$

$\frac{10}{15} = \frac{2}{3}$

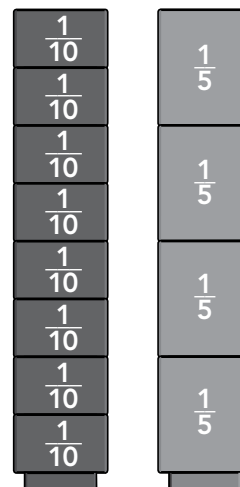


Use Fraction Towers to build the model.
Write the missing numerator.

1. $\frac{6}{8} = \frac{9}{12}$

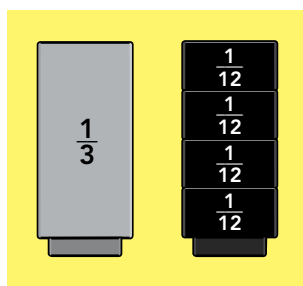


2. $\frac{8}{10} = \frac{4}{5}$

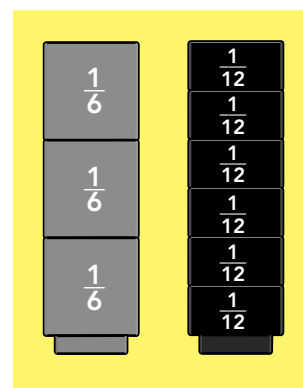


Use Fraction Towers to model the given fraction and equivalent fraction. Draw your model. Write the missing numerator.

3. $\frac{1}{3} = \frac{4}{12}$



4. $\frac{6}{12} = \frac{3}{6}$



Find the equivalent fraction. Write the missing numerator.

5. $\frac{2}{5} = \frac{4}{10}$

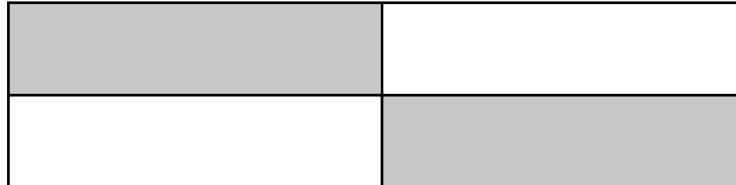
6. $\frac{3}{12} = \frac{1}{4}$

7. $\frac{8}{12} = \frac{4}{6}$

Name Answer Key

2

What fraction of the rectangle is shaded?



ANSWER: $\frac{2}{4}$ or $\frac{1}{2}$

COMMENTS & EXTENSIONS: This is not a very common picture of $\frac{1}{2}$. Given a rectangle such as the one shown here, what other pictures of $\frac{1}{2}$ can students produce?

Try This

- Model the first fraction using Fraction Tower Cubes.
- Use color hints to model an equivalent fraction in simplest form.
- Fill in the answer blanks.

1. $\frac{8}{12} = \frac{2}{3}$

8 black = 2 orange

3. $\frac{9}{12} = \frac{3}{4}$

9 black = 3 yellow

5. $\frac{5}{10} = \frac{1}{2}$

7. $\frac{10}{12} = \frac{5}{6}$

9. $\frac{6}{8} = \frac{3}{4}$

2. $\frac{2}{8} = \frac{1}{4}$

2 blue = 1 yellow

4. $\frac{2}{10} = \frac{1}{5}$

2 purple = 1 green

6. $\frac{6}{12} = \frac{1}{2}$

8. $\frac{5}{6} = \frac{5}{6}$

10. $\frac{7}{10} = \frac{7}{10}$

Model
first
fraction.Model
equivalent
fraction.**Challenge**

Find an equivalent fraction without using cubes.
Show your work.

$\frac{8}{10} = \frac{4}{5}$

$\frac{6}{9} = \frac{2}{3}$

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

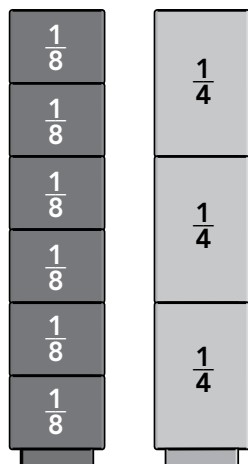
$\frac{4}{6} = \frac{2}{3}$

$\frac{4}{12} = \frac{1}{3}$

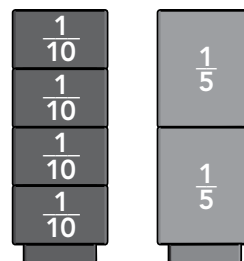


Use Fraction Towers to build the model. Write the missing numerator to rename the fraction.

1. $\frac{6}{8} = \frac{3}{4}$

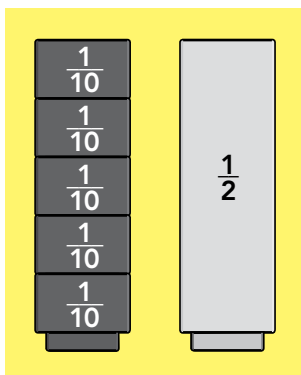


2. $\frac{4}{10} = \frac{2}{5}$

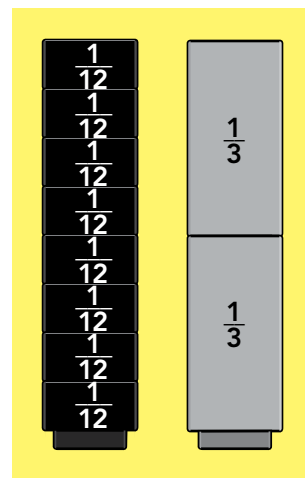


Use Fraction Towers to model the given fraction and the equivalent fraction in simplest form. Draw your model. Write the fraction.

3. $\frac{5}{10} = \frac{1}{2}$



4. $\frac{8}{12} = \frac{2}{3}$



Write the fraction in simplest form.

5. $\frac{10}{12} = \frac{5}{6}$

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

7. $\frac{9}{12} = \frac{3}{4}$

Name Answer Key

3

Can these be shared equally among 3 people?

- a. 8 chairs
- b. 12 pens
- c. 20 pennies

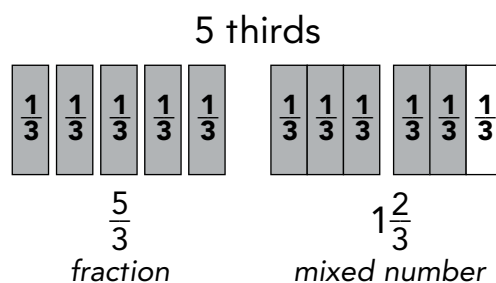
ANSWER: a. no; b. yes; c. no

COMMENTS & EXTENSIONS: Note that all these items are usable only in whole units. (Pens cannot be cut into meaningful pieces.) If the materials were liquids, like gallons of milk, the answers would be different.

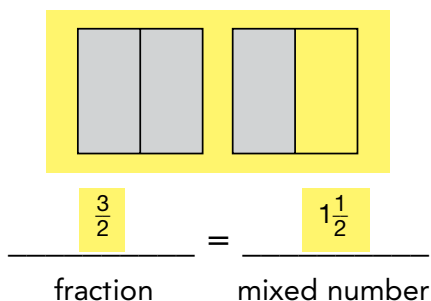


Try This

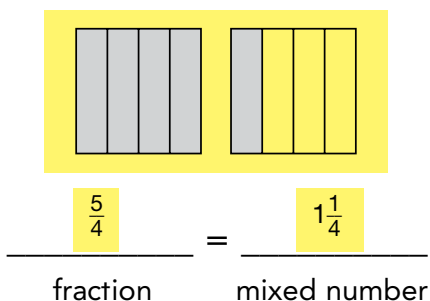
- Choose the appropriate Fraction Square pieces to model the problem.
- Draw and color the fraction parts on the squares shown.
- Write the fraction and the mixed number.



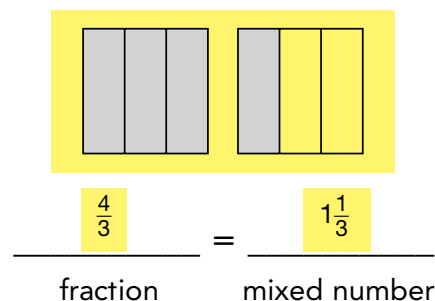
1. 3 halves



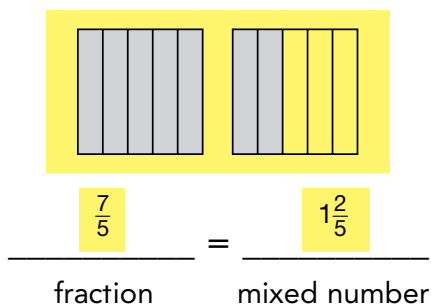
2. 5 fourths



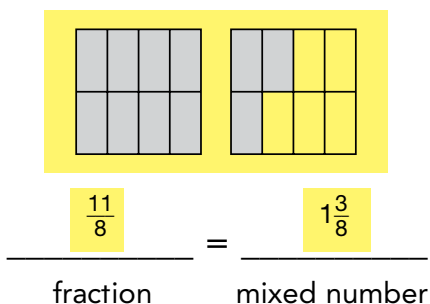
3. 4 thirds



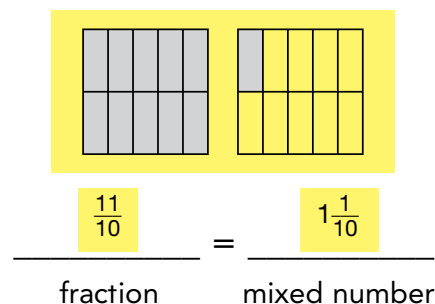
4. 7 fifths



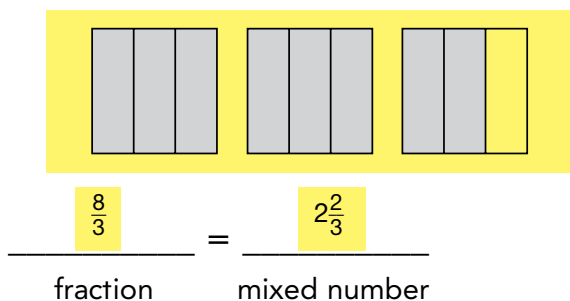
5. 11 eighths



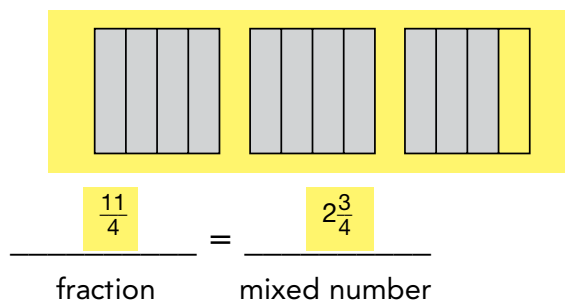
6. 11 tenths



7. 8 thirds



8. 11 fourths



Use Fraction Squares to build the model. Write the number the model represents as a fraction and as a mixed number.

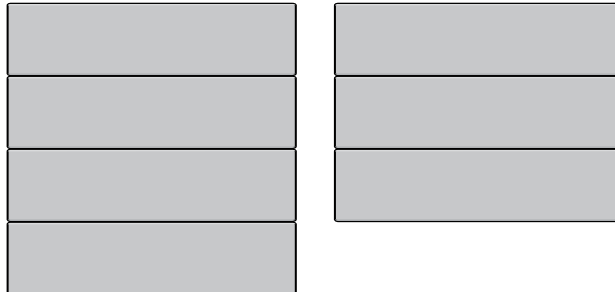
1. 3 halves



$$\frac{3}{2} = 1\frac{1}{2}$$

fraction mixed number

2. 7 fourths

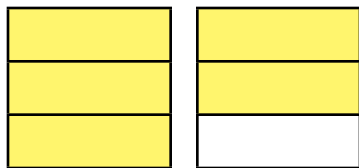


$$\frac{7}{4} = 1\frac{3}{4}$$

fraction mixed number

Use Fraction Squares to model the number. Draw the model on the squares shown. Write the number as a fraction and as a mixed number.

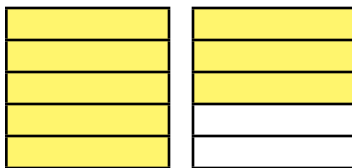
3. 5 thirds



$$\frac{5}{3} = 1\frac{2}{3}$$

fraction mixed number

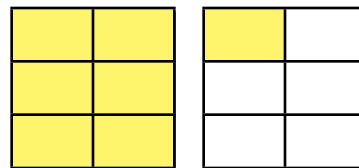
4. 8 fifths



$$\frac{8}{5} = 1\frac{3}{5}$$

fraction mixed number

5. 7 sixths

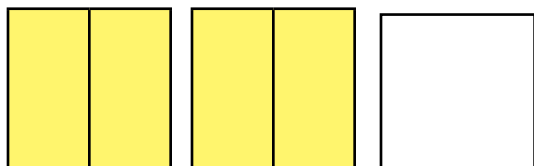


$$\frac{7}{6} = 1\frac{1}{6}$$

fraction mixed number

Draw a model of the number on the squares shown. Write the number as a fraction and as a mixed number.

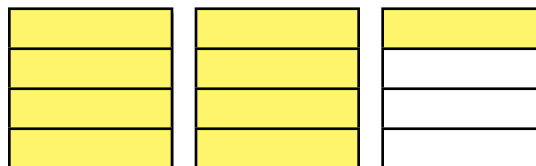
6. 5 halves



$$\frac{5}{2} = 2\frac{1}{2}$$

fraction mixed number

7. 9 fourths



$$\frac{9}{4} = 2\frac{1}{4}$$

fraction mixed number

Name Answer Key

4

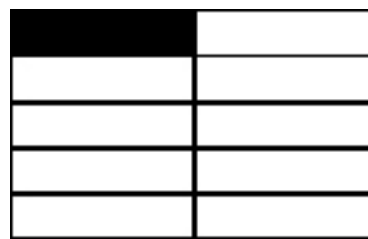
a. What fraction is shaded?

A. $\frac{1}{10}$

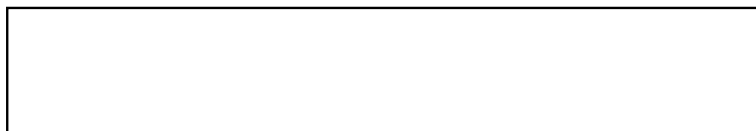
B. $\frac{1}{20}$

C. $\frac{1}{2}$

D. $\frac{1}{4}$

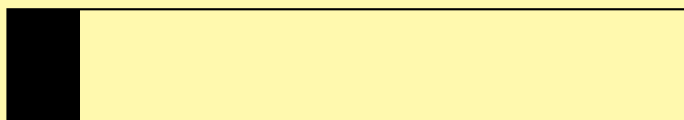


b. Shade the same fraction of this shape.



ANSWER: a. $\frac{1}{10}$;

b. Sample:



COMMENTS & EXTENSIONS: A question for students: Where in real life do you run across the fraction $\frac{1}{2}$? Where do you find $\frac{1}{4}$?

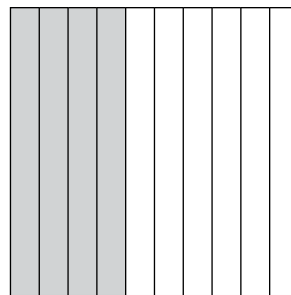


What is the most common fraction you can find in real life? Give 3 examples of where this fraction shows up in real life.

Try This

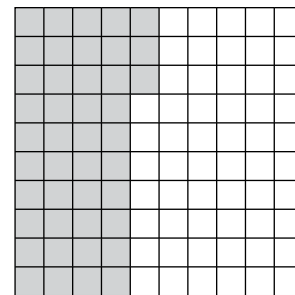
- Use Base Ten Blocks to model each fraction.
- Choose a tenths or hundredths grid to draw the fraction. Label the grid with its corresponding problem number.
- Fill in the blanks with the decimal name, fraction, or decimal for each problem.

4 tenths



$$\frac{4}{10} = 0.4$$

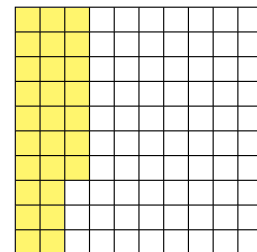
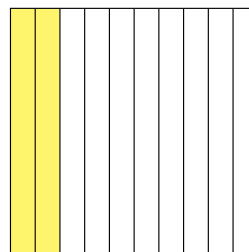
43 hundredths



$$\frac{43}{100} = 0.43$$

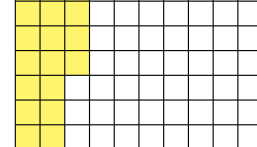
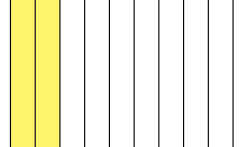
1. 2 tenths = $\frac{2}{10}$ = 0.2

fraction decimal



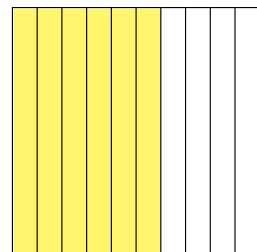
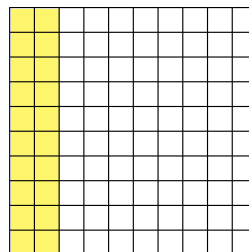
2. 27 hundredths = $\frac{27}{100}$ = 0.27

fraction decimal



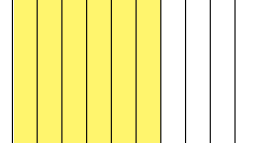
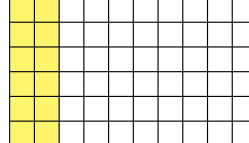
3. 20 hundredths = $\frac{20}{100}$ = 0.20

fraction decimal



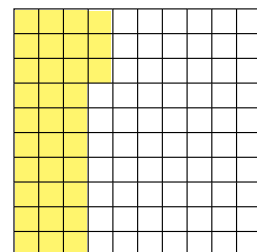
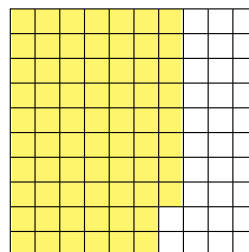
4. 6 tenths = $\frac{6}{10}$ = 0.6

fraction decimal



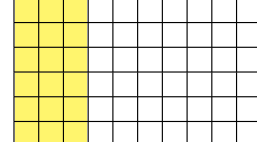
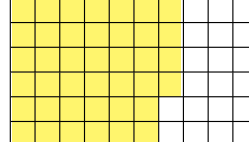
5. 68 hundredths = $\frac{68}{100}$ = 0.68

fraction decimal



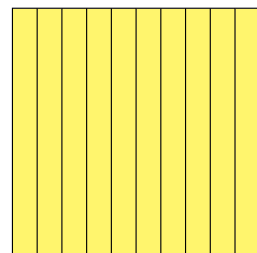
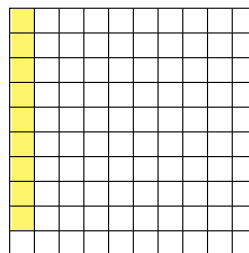
6. 33 hundredths = $\frac{33}{100}$ = 0.33

fraction decimal



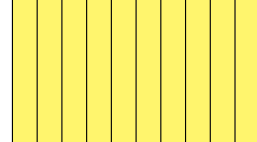
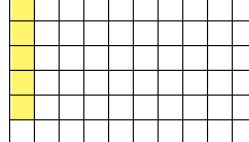
7. 9 hundredths = $\frac{9}{100}$ = 0.09

fraction decimal



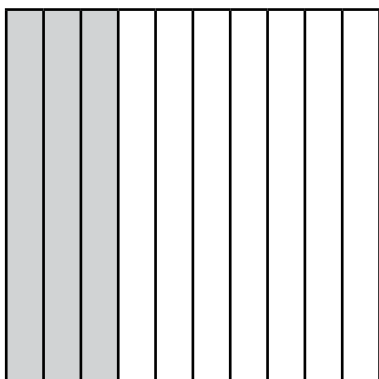
8. 10 tenths = $\frac{10}{10}$ = 1

fraction decimal

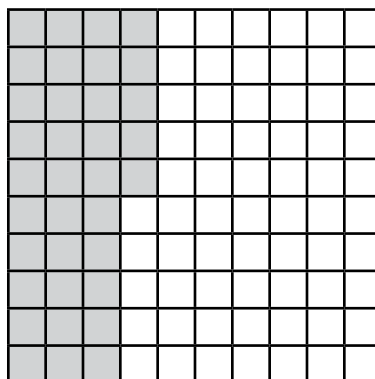


Use Base Ten Blocks to build the model. Write the number as a fraction and as a decimal number.

1. 3 tenths = $\frac{3}{10}$ = 0.3
fraction decimal

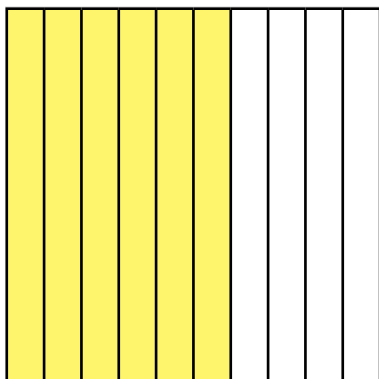


2. 35 hundredths = $\frac{35}{100}$ = 0.35
fraction decimal

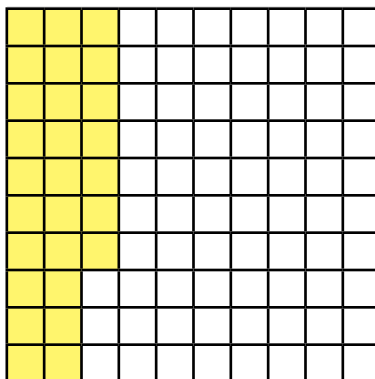


Use Base Ten Blocks to model the number. Draw the model by shading the grid. Fill in the blanks.

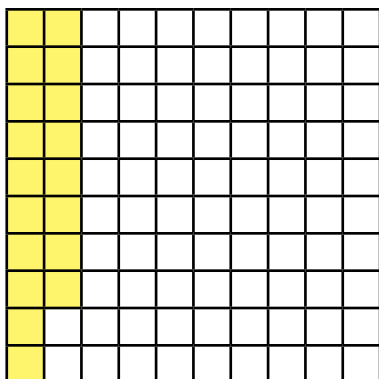
3. 6 tenths = $\frac{6}{10}$ = 0.6
fraction decimal



4. 27 hundredths = $\frac{27}{100}$ = 0.27
fraction decimal



5. 18 hundredths = $\frac{18}{100}$ = 0.18
fraction decimal



6. 42 hundredths = $\frac{42}{100}$ = 0.42
fraction decimal

