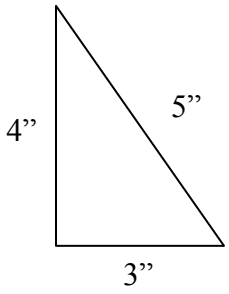
lesson ten - student resource sheet

Lesson Objective: Find the perimeter of a polygon with five or fewer sides.

Vocabulary Box

polygon— A closed plane figure with all straight sides.
Example: The figure at right is a polygon. It is a triangle.



perimeter— The total distance around the outside of a polygon.
Example: The perimeter of the triangle at the right is 12 inches.

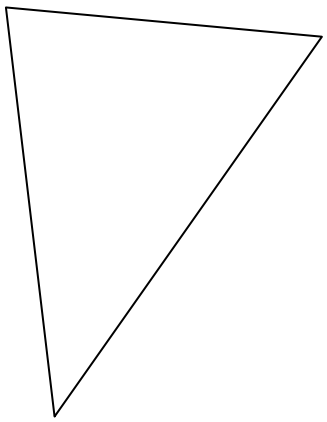
formula— A mathematical rule. Example: The formula for perimeter is: Perimeter = sum of the lengths of the sides of a polygon; 3 inches + 4 inches + 5 inches = 12 inches

Independent Practice

Directions: Complete the following practice problems on your own. Your teacher will review the answers. Make sure you show all your work.

I. Use a centimeter ruler to measure the length of each side of the polygons below. Label your measurements along the correct sides of each polygon. Then use your measurements to find the perimeter of each polygon.

1.



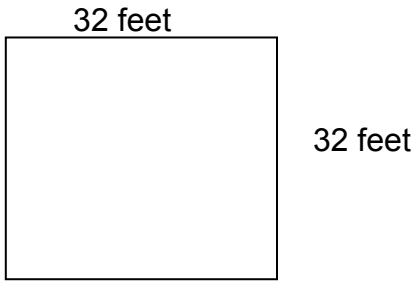
Perimeter = _____

2.

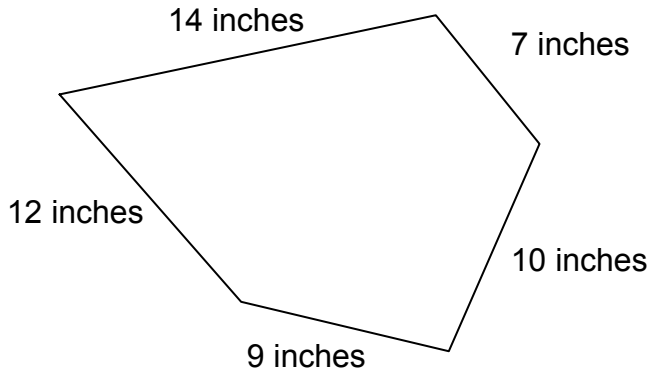
Perimeter = _____

II. Find the perimeter of each polygon. Be sure to use the correct units.

1.



2.

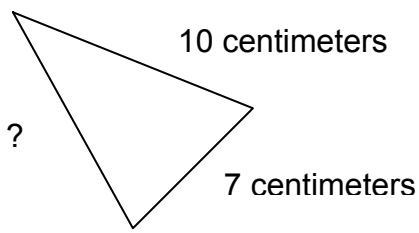


Perimeter = _____

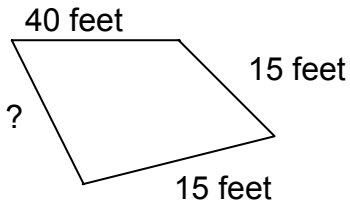
Perimeter = _____

III. Use the perimeter and the given side lengths of each polygon to find the length of its unlabeled side. Be sure to use the correct units.

1.



2.



Perimeter = 30 centimeters

Unlabeled side = _____

Perimeter = 110 feet

Unlabeled side = _____

lesson ten - student resource sheet

I. Use an inch ruler to draw each of the following polygons.

1. Draw a rectangle with a perimeter of 10 inches.

2. Draw a square with a perimeter of 20 inches.

II. Use an inch ruler to measure the perimeter of each of these objects.

1. Measure the perimeter of a sheet of notebook paper.

2. Measure the perimeter of your dry-erase board.

Problem Solving

The four bases on a baseball field form the four corners of a square. The distance between each set of two bases in a row is 90 feet. When a baseball player hits a home run, he or she runs all the way around the four bases.

1. How far does a baseball player have to run for a home run?

    1) Draw a picture of the field. Label the lengths of its sides.

    2) Find the total distance around the outside of the field.

        Perimeter = _____ + _____ + _____ + _____

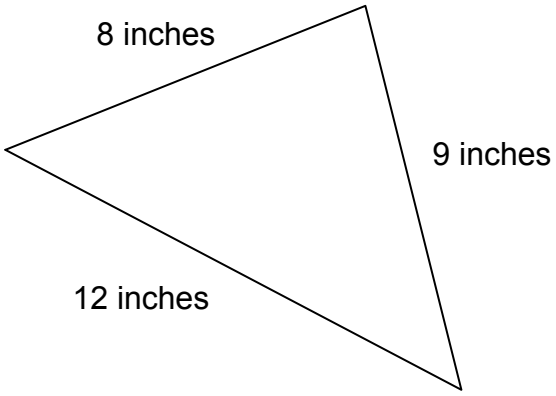
        Total distance run = _____

    3) Write your answer in a complete sentence. Use words from the problem.

2. Little League baseball fields are different. The distance between each set of two bases in a row is 30 feet shorter than on a regular baseball field. How far does a Little League player have to run when he or she hits a home run? Show all your work. Write your final answer in a complete sentence.

1. To find the perimeter of any polygon, I find the _____ of all of its _____ lengths.

2. What is the perimeter of this polygon?



3. What is the perimeter of a square that has sides that each measure 20 centimeters?

lesson eleven - student resource sheet

Lesson Objective: Write the decimal equivalent of a fraction with a denominator of 10 or 100.

Vocabulary Box

decimal – A number with one or more digits to the right of the decimal point. Examples: 0.5, 0.25, 1.7, and 20.05.

equivalent – Having equal value. Examples: $\frac{1}{2} = \frac{5}{10} = \frac{50}{100} = 0.5 = 0.50$. 1 dime = 2 nickels = 10 pennies.

hundredth — One of 100 equal parts. Example: There are 100 pennies in 1 dollar, so 1 penny is one hundredth of a dollar.

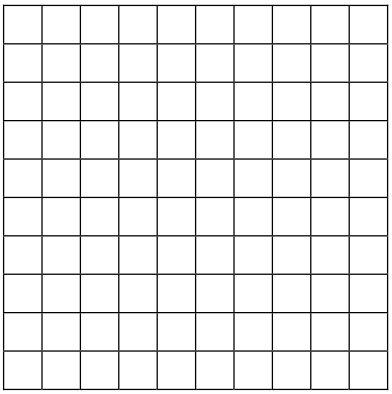
tenth — Ten of 100 equal parts, or 1 of 10 equal parts. Examples: There are 100 pennies in 1 dollar, so 10 pennies are one tenth of a dollar. There are 10 dimes in 1 dollar, so 1 dime is one tenth of 1 dollar.

Guided Practice

Directions: Complete the following practice problems with your partner. Your teacher will review the answers. Make sure you show all your work.

I.

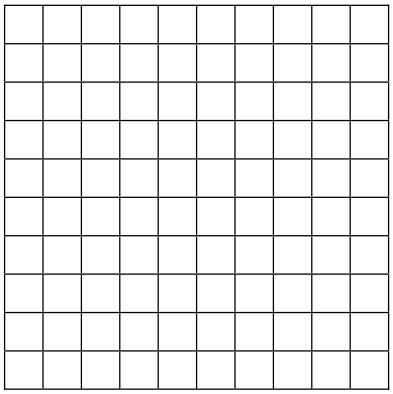
1.



Circle which number you are modeling:

0.27 or $\frac{27}{100}$

2.

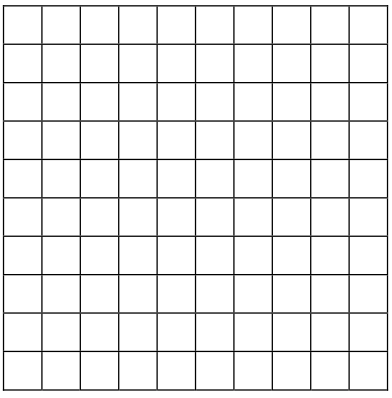


Circle which number you are modeling:

0.3 or $\frac{3}{10}$

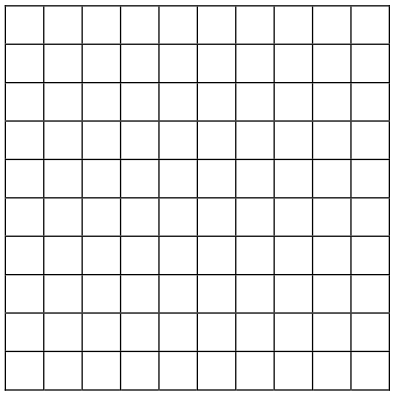
II. Shade each grid to show the fraction or decimal written below it.

1.



$\frac{53}{100}$

2.



0.7

III. Write the equivalent decimal for each fraction.

1. $\frac{29}{100}$ = _____
2. $\frac{2}{10}$ = _____
3. $\frac{9}{100}$ = _____
4. $\frac{6}{10}$ = _____

IV. Write each decimal as a fraction with a denominator of 10 or 100.

1. 0.4 = _____
2. 0.35 = _____
3. 0.08 = _____
4. 0.5 = _____

Summary/Closure

A. Vocabulary Words

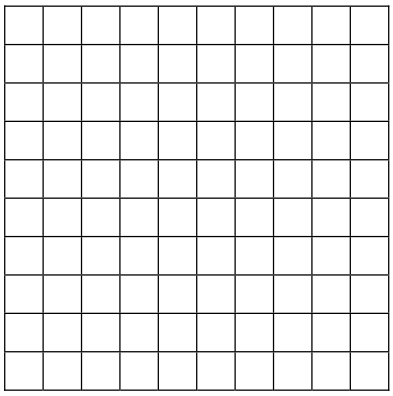
Directions: Write *tenths* or *hundredths* in each blank to complete the sentences.

1. I have 3 dimes. So I have 3 _____ of a dollar.
2. I have 9 pennies. So I have 9 _____ of a dollar.
3. I have 25 pennies. So I have 25 _____ of a dollar.
4. I have 6 dimes. So I have 60 _____of a dollar.
5. I have 50 pennies. So I have 5 _____ of a dollar.

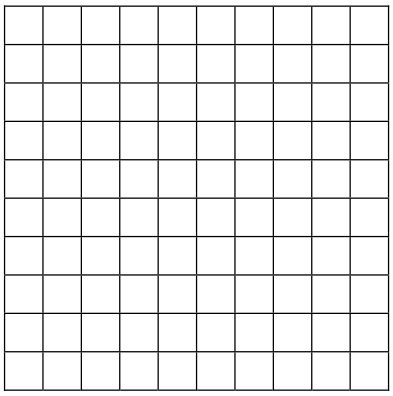
B. Summarize What We Learned Today

Write two fractions — one with a denominator of 10 and one with a denominator of 100. Then explain in words, pictures, and numbers how to write the equivalent decimal for each of those fractions. You will use this explanation as a personal reminder. You may use the grids below.

1.



2.



lesson twelve - student resource sheet

Lesson Objective: Write the decimal equivalent of a fraction with a denominator of 10 or 100.

Vocabulary Box

decimal – A number with one or more digits to the right of the decimal point. Examples: 0.5, 0.25, 1.7, and 20.05.

equivalent – Having equal value. Examples: $\frac{1}{2} = \frac{5}{10} = \frac{50}{100} = 0.5 = 0.50$. 1 dime = 2 nickels = 10 pennies.

hundredth — One of 100 equal parts. Example: There are 100 pennies in 1 dollar, so 1 penny is one hundredth of a dollar.

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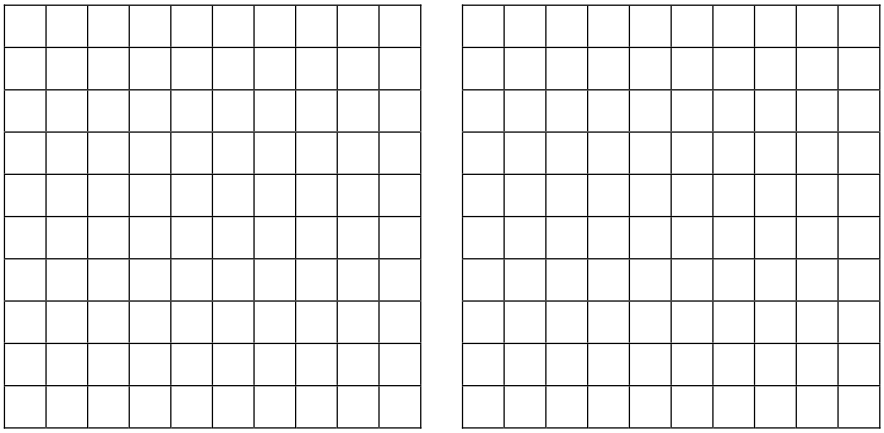
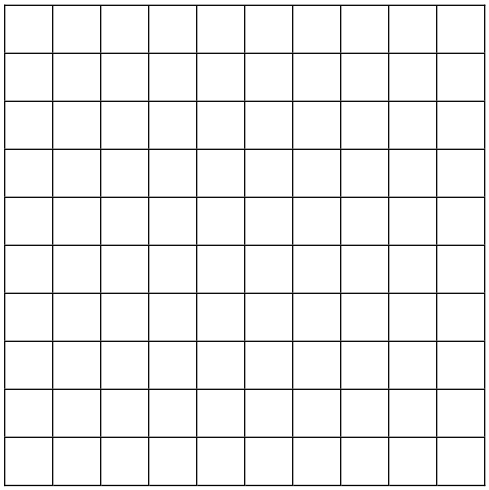


Independent Practice

Directions: Complete the following practice problems on your own. Your teacher will review the answers.

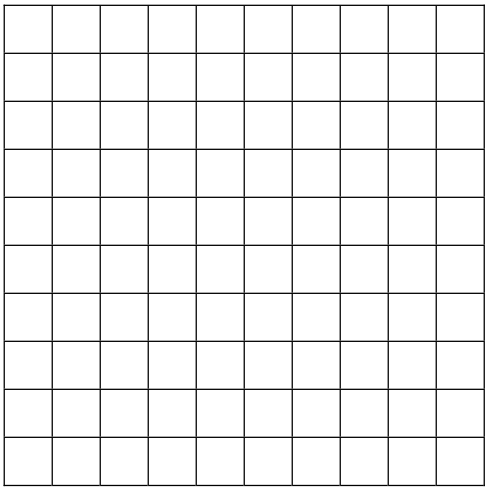
I. Shade each grid to show the fraction or decimal written below it.

1.



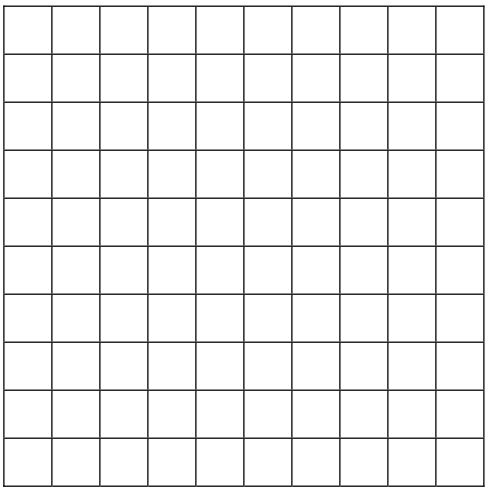
0.39

2.



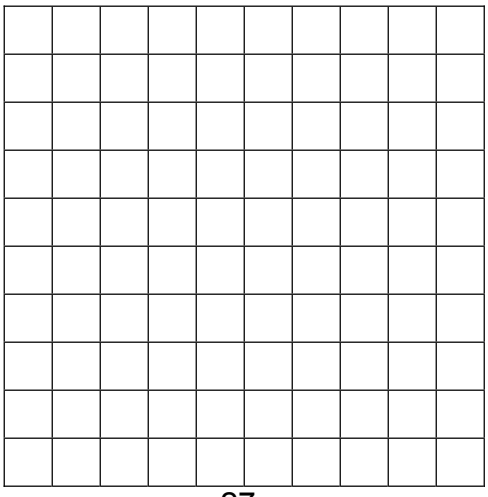
$\frac{8}{100}$

3.



0.7

4.



$\frac{27}{100}$

lesson twelve - student resource sheet

II. Write the equivalent decimal for each fraction.

1. $\frac{65}{100}$ = _____

2. $\frac{9}{10}$ = _____

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

4. $\frac{3}{100}$ = _____

III. Write each decimal as a fraction with a denominator of 10 or 100.

1. 0.13 = _____

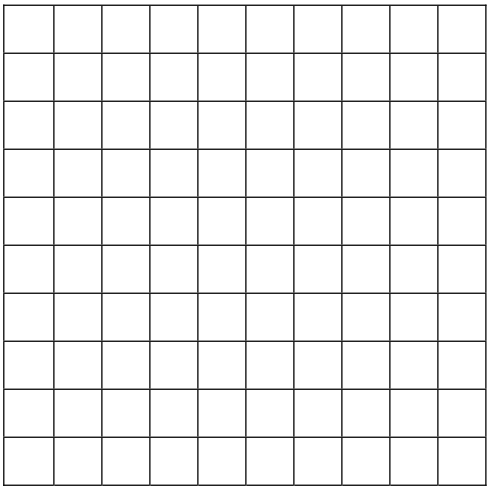
2. 0.7 = _____

3. 0.04 = _____

4. 0.99 = _____

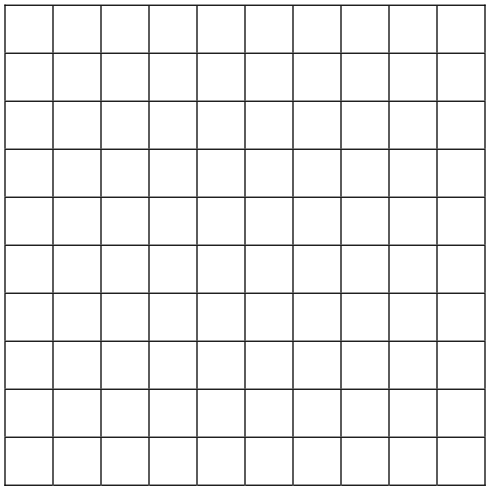
Directions: Shade columns and squares on each grid to show the fraction written below it. Then write that fraction as a fraction with a denominator of 100. Finally, write that fraction as a decimal.

1.



$\frac{1}{2}$ = $\frac{\quad}{100}$ = _____

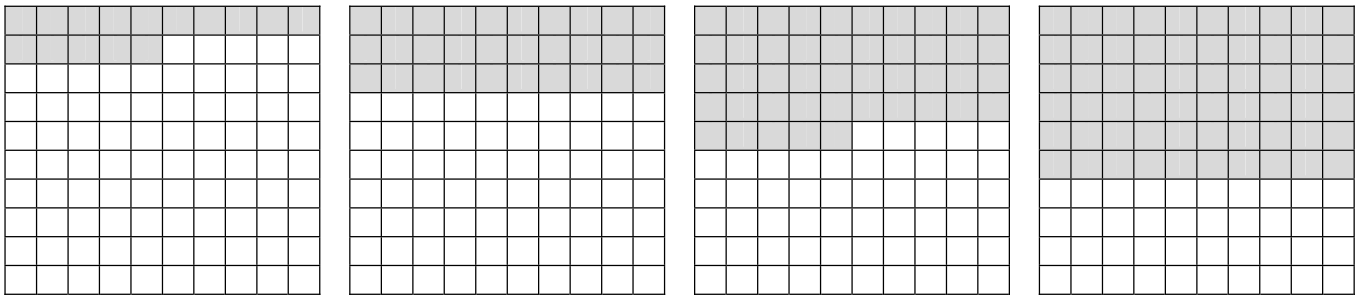
2.



$\frac{1}{4}$ = $\frac{\quad}{100}$ = _____

Problem Solving

In art class today, the students used grid paper to make different designs. Jamal made five designs. His first four designs are shown below.



1. What fraction names the shaded part of each design?

   First design: _____

   Second design: _____

   Third design: _____

   Fourth design: _____

2. What decimal names the shaded part of each design?

   First design: _____

   Second design: _____

   Third design: _____

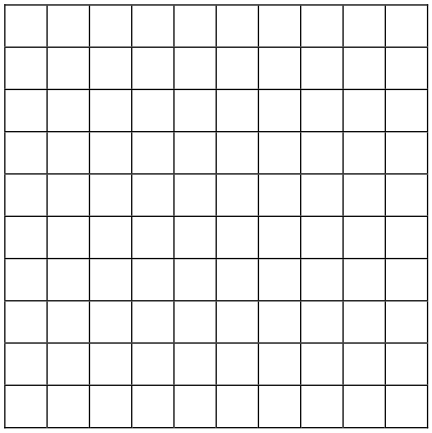
   Fourth design: _____

3. Look at Jamal's first four designs. You should see a pattern. How many grid squares will he shade in his fifth design? Write your answer in a complete sentence. Use words from the problem.

4. What fraction will name the shaded part of his fifth design?

5. What decimal will name the shaded part of his fifth design?

6. Use shading to show what you think Jamal's fifth design will look like.



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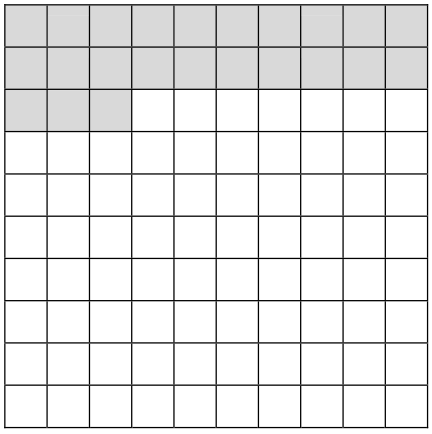
1. What fraction and decimal name the shaded part of this grid?



2. What fraction is equivalent to 0.07?

3. How many tenths are there in one whole?