Use the *Proportional Tiles* activity from class.

1. Find another solution to #9 different from the one you have on your paper.
2. Write a new problem like the one in #9 that meets the following criteria then give a solution.

**Criteria:** Has at least two different tiles and the areas of the two colors are not equal.

**Problem:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Your solution:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Write a new problem like the one in #9 that meets the following criteria then give a solution.

**Criteria:** Has at least three different tiles

**Problem:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Your solution:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. You saw in class that solutions to #8 could be listed in a table like the one below.
   1. Fill in the blank cells of the table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Number of Trapezoid Tiles (red) | 2 | 4 | 8 | 12 | 50 |  |
| Number of Rhombus Tiles (blue) | 3 | 6 | 12 | 18 |  | 84 |

* 1. Explain how you found the missing values.
  2. Can any number be used for the number of rhombus tiles? Justify your answer.

**Thinking Ahead about Rounding:**  To prepare for your next class, you should fully understand the following questions. You should check your answers with the answer key posted on your instructor’s website to make sure you are correct.

You can get help with this work from the following sources:

1. Visit your instructor during office hours
2. Go to the Algebra Alcove
3. Page 16 of your textbook.
4. Use the following resources on the Internet:

Website: <http://www.mathsisfun.com/rounding-numbers.html>

**Important Note:** On assignments and tests, you will often be given specific instructions on what place to round to. You will be expected to round correctly and will lose points if you do not. Sometimes in application problems, you will be expected to decide how to round based on the context of the problem. For example, if your answer is in cars, you would round to the nearest whole number because it does not make sense to have a fractional part of a car. Sometimes, your choice for rounding is based on *what* you are measuring but it could also depend on *how much* you are measuring. If your answer is in dollars, you would probably round to the hundredths place because dollars are measured to the nearest one-hundredth (one cent). But if your answer is in millions of dollars, cents might be meaningless, so you might choose to round to thousands.

Round each number to the place that is indicated:

|  |  |  |
| --- | --- | --- |
| 1. Hundredths: 105.863 | 1. Hundreds: 384.627 | 1. Ones: 52.49 |
| 1. Tenths: 0.89 | 1. Tenths: 2.98 | 1. Thousands: 4,476 |

What place value would it make sense to round to in the following situations? (Note: In some cases, more than one answer may be acceptable.)

1. Measuring the average number of people in a Fort Lewis class.
2. Measuring the number of people in the United States.
3. Measuring the amount of gallons of gas you buy at a gas pump.
4. Measuring the distance you walked in miles.

**Thinking Back**

Fill in the blanks with the appropriate vocabulary from previous lessons.

1. *6* is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of *24* and  *18* is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of *9*.
2. *13x* and -*14y* are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the expression *13x – 14y*.
3. In the expression *43,* *4*  is the \_\_\_\_\_\_\_\_\_\_\_\_\_ and *3*  is the \_\_\_\_\_\_\_\_\_\_\_\_\_. This expression could be written in expanded notation as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Write as a…

1. Mixed number
2. A decimal rounded to the nearest hundredth