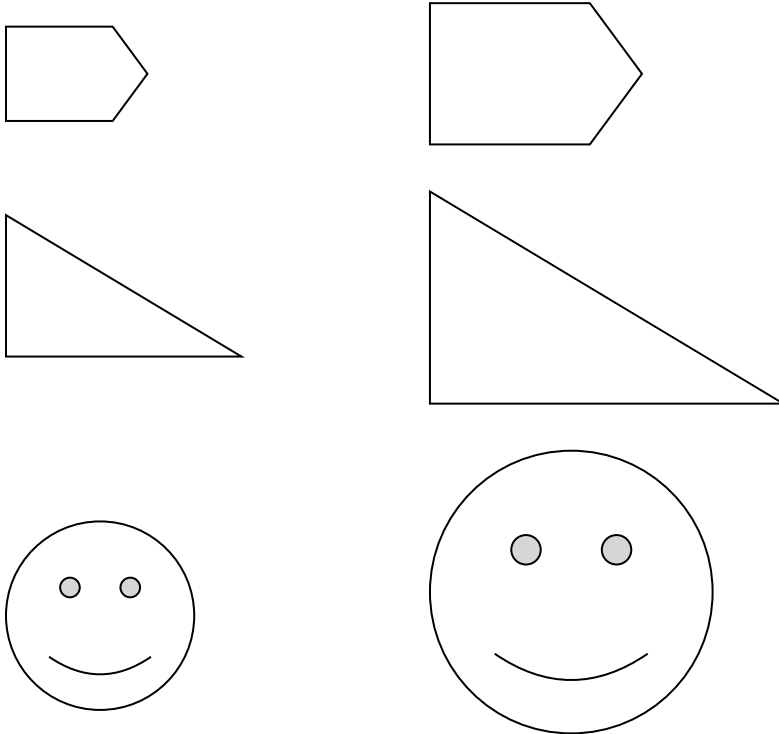


Strand: Algebra
Skill Addressed: Understanding Ratio
Activity: *Similar Geometric Shapes*

Name: KEY
Blk:



Example: 1 is to 1.5 as 2 is to 3

There are multiple ways of representing this concept. For example:

$$\frac{1}{1.5} = \frac{2}{x}$$

or

$$1:1.5 \quad as \quad 2:x$$

Which method of representing equivalent ratios do you prefer? ?

What do you know about equivalent ratios? *That both are equal – that you can have a multiple of one side on the other side.*

Can you try to solve this ratio? *In this case, I can multiply both sides by 1.5 and by x (the common denominator.)*

$$\frac{1}{1.5}(1.5x) = \frac{2}{x}(1.5x) \quad so \quad x = 3$$

Application: Similar Geometric Shapes (continued)



Recipe to make pasta:

A simple recipe to make pasta is to use one egg and 1.5 cups of Flour.

The family is coming to dinner and you have 2 eggs! How much flour should you use?

3 cups of flour

There are many ways to set up this information:

$\frac{1}{2} = \frac{1.5}{x}$ ← In this example, the eggs are on the left, and the first recipe is represented by the numerators of the fractions.

You can also think of it in table form if you like:

	eggs	flour
recipe 1	1	1.5
recipe 2	2	x

How many ways do you think you could set up the information? [hint: in how many ways can you interchange the titles in the rows and columns of the table?]



Think about it and answer carefully!

4 ways – switch the columns or switch the rows (or both)

1	1.5
2	x

1.5	1
x	2

2	x
1	1.5

x	2
1.5	1