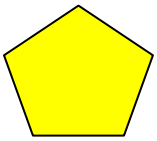
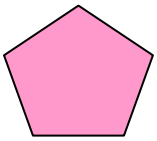
Smiley Face Math **Name:**_____
Grade 3, Worksheet III

☺ ☺ 1. Draw one line to turn this pentagon into *two* polygons with different names. What two polygons have you made?



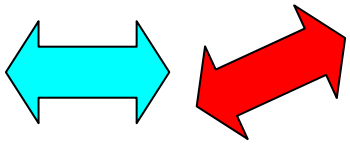
_____ _____

Draw one line to turn this pentagon into 2 polygons with the same name. What polygon have you made?

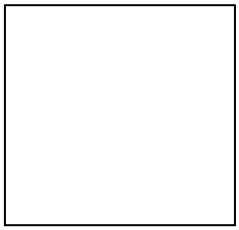


_____

☺ ☺ ☺ 2. The two "double arrows" below are congruent. What does congruent mean?



In the box, draw a congruent shape for this figure.



☺ ☺ ☺ ☺ 3. 

1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th 13th 14th 15th 16th

a. Will the 17th shark be swimming left or right? _____
b. How about the shark after that? _____
c. The 20th shark? _____
d. The 25th shark? _____
e. The 30th shark? _____
f. Tell how to make this pattern of sharks:

☺ ☺ 4. The Tampa Bay Bucs had *five hundred sixteen thousand, one hundred eighty-eight* fans fill the stadium in 2008. Write that amount using numbers.

_____

Their goal for 2010 was to have *ten thousand* more fans attend. Write the total number of fans they wanted in 2010, using digits instead of words. _____

☺ ☺ ☺ 5. The pictures below are all road signs. Tell how many sides and and how many angles each has. Also tell if its angles are *acute, right,* or *obtuse.*

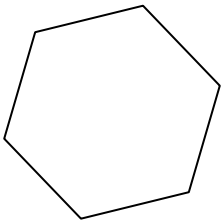
___ sides
___ angles
All angles are _____

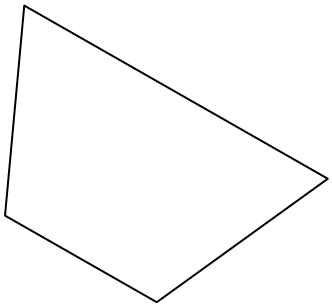
___ sides
___ angles
All angles are _____

___ sides
___ angles
All angles are _____

☺ ☺ ☺ 6. Each of the signs above is a polygon. How are they the same? How are they different?
Explain:

☺ ☺ 7. The star picture below shows a polygon with *line symmetry*. You could fold across any of the lines and the two pieces would be exactly alike. In the two polygons below, draw at least one *line of symmetry* in each figure.





☺ 8. The piece of paper you are writing on has *line symmetry* because there are two lines you can fold on so the sides match up. Draw those two lines, and then measure their length in inches.

Answer: The two *lines of symmetry* for this paper are _____ inches long and _____ inches long.