

Name _____

Types of Triangles

1. Open the sketch **triangletypes.gsp**. Drag each red dot ("vertex" or corner) to change the triangles. You will notice that they change in different ways. Be sure to drag every vertex!

| Triangle | What do you notice about the lengths of the sides? |
|-----------------|---|
| Red | |
| Blue | |
| Green | |
| Purple | |
| | What do you notice about the angles? |
| Red | |
| Blue | |
| Green | |
| Purple | |

2. You can move the blue and purple triangles so that their vertices match up and the two triangles lie on top of each other (try it!). This is marked on the chart below by the **Y**. Mark **Y** or **N** in each box of the chart to show whether the other pairs can match up.

| | Red | Blue | Green | Purple |
|---------------|------------|-------------|--------------|---------------|
| Purple | | Y | | |
| Green | | | | |
| Blue | | | | |

3. Which is your favorite triangle? Why?

Name _____

Types of Triangles

1. Open the sketch **triangletypes.gsp**. Drag the vertices of each of the triangles. Record what you notice about the angles and the lengths of the sides of each of the triangles. Based on these observations, what *kind* of triangle do you think each is? Include some reasons for each conclusion.

Red:

Blue:

Green:

Purple:

2. Go to page 2 of the sketch (use the tab at the bottom). Drag the vertices of the triangles and explain whether or not the additional information provided agrees with the conclusions you made for each triangle in Question 1.

Red:

Blue:

Green:

Purple:

3. Go to page 3 of the sketch. Again, drag the vertices of the triangles and explain whether or not the additional information provided agrees with the conclusions you made for each triangle in Question 1.

Red:

Blue:

Green:

Purple:

4. You can move the blue and purple triangles so that their vertices match up and the two triangles lie on top of each other (try it!). This is marked on the chart below by the **Y**. Try it with the other possible pairs of triangles, and mark **Y** or **N** in each box of the chart to show which pairs can and cannot match up.

| | Red | Blue | Green | Purple |
|---------------|------------|-------------|--------------|---------------|
| Purple | | Y | | |
| Green | | | | |
| Blue | | | | |

5. Which is your favorite triangle? Why?