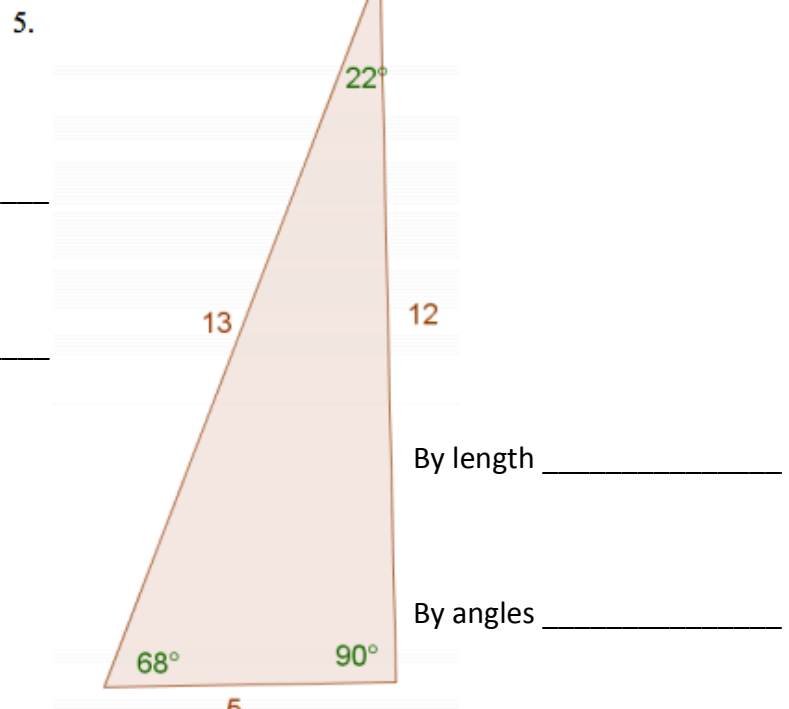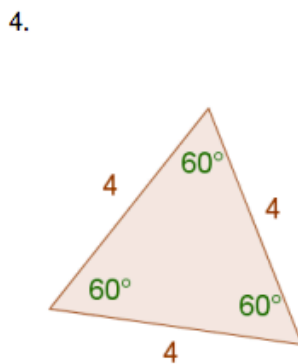| Classifying Triangles by angles and sides	**Assignment 7-3** **What's in a name?**	SYW: No work = no credit Work in Pencil only!

1. Review. Simplify the following:

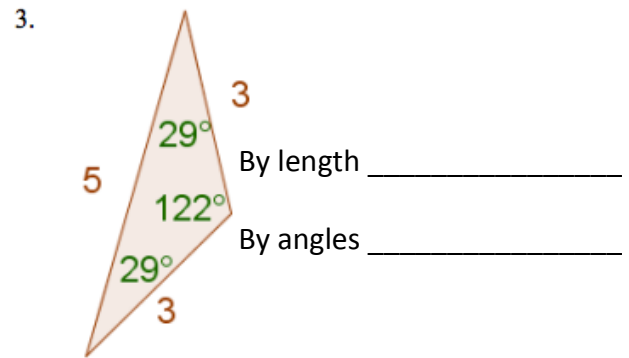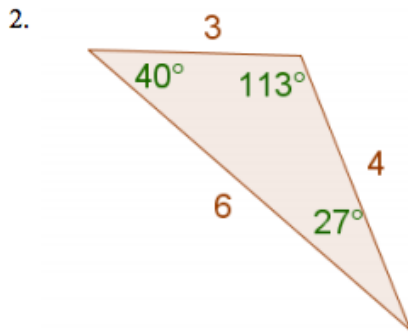   a. $5 - (-15)$ c. $8 - 22 \cdot 6 \div 4 + 5^2$
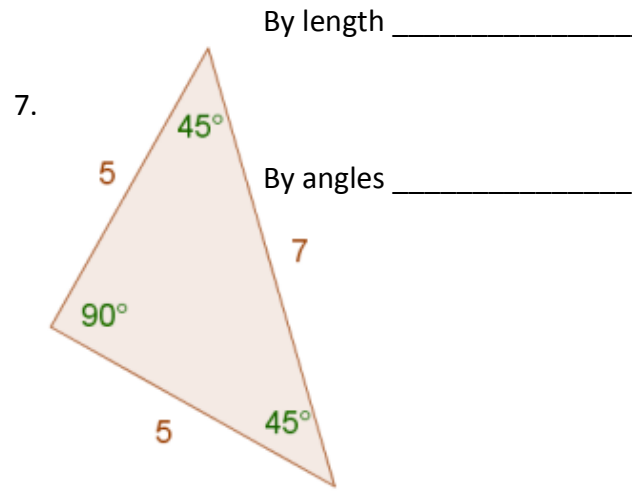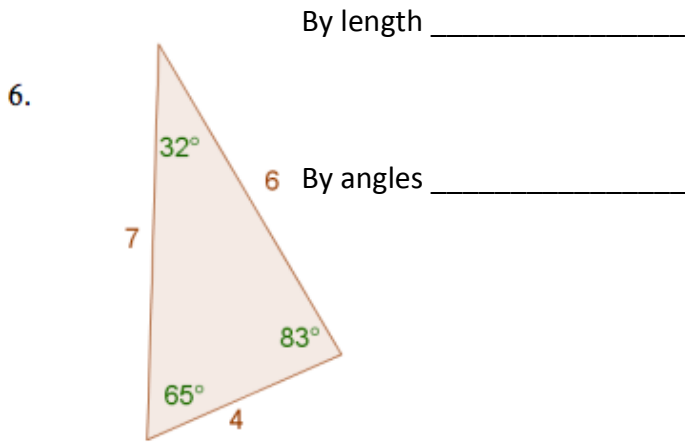
   b. $3 - 5(2 + 18) \div 25$ d. $-\frac{2}{5} - 3\frac{1}{3}$

For #2-7 (Each problem is worth 2 points, 1 point for each part.)

      a. **Classify the triangle as equilateral, isosceles, or scalene by examining the side lengths.**

      b. **Classify the triangle as right, obtuse, or acute by examining the angle measures.**

2.

By length _____

By angles _____

3.

By length _____

By angles _____

4.

By length _____

By angles _____

5.

By length _____

By angles _____

By length _____

6.

By length _____

7.

32°

6 By angles _____

7

83°

65°

4

45°

5

By angles _____

90°

7

5

45°

True or false. Draw a picture to justify your answer. (2 points each)

8. An acute triangle has three sides that are all different lengths.

9. A scalene triangle can be an acute triangle as well.

10. An isosceles triangle can also be a right triangle.

11. An obtuse triangle can have multiple obtuse angles.

12. A scalene triangle has three angles less than 90 degrees.

13. A triangle with a $100°$ angle must be an obtuse triangle.

14. If two angles in a triangle are $40°$ and $35°$, the triangle must be acute.