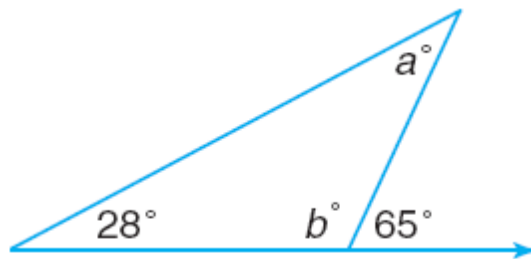**Name:** _____

Triangles and Angles

Exercise 1: The measures of the angles of a triangle are 2*x*, 3*x*, and 4*x*. Find the measure of each angle.

Exercise 2: Find $m\angle L$ in $\square MNL$ if $m\angle M = 25$ and $m\angle N = 25$

Exercise 3: Find the value of each variable in the figure below

Exercise 4: Choose the numbers that are not measures of the three angles of a triangle.

a. $10^0, 20^0, 150^0$
b. $30^0, 60^0, 90^0$
c. $40^0, 70^0, 80^0$
d. $45^0, 55^0, 80^0$

Exercise 5: The measure of one acute angle of a right triangle is 25^0. Find the measure of the other acute angle.

Exercise 6: Is it possible to have two obtuse angles in a triangle?

Exercise 7: The measures of the angles of a triangle are *x* + 5, 3*x* + 14, and *x* + 11. Find the measure of each angle.

Exercise 8: If two angles of one triangle are congruent to two angles of another triangle, what is the relationship between the third angles of the triangles? Explain your reasoning.