Name: _____ **Panther ID:** _____

Pop-Quiz 0 Trigonometry Summer A 2016

1. What is the sum of the measures of the angles of a triangle? Can you give a proof of this fact?

2. The quadrilateral $ABCD$ is a rhombus, with each side 10 cm long. It is also known that the angle at vertex A has a measure of $60°$. Find the lengths of the diagonals of this rhombus.

3. On a dark night a man is standing 20 ft away from a vertical pole with a light on top. If the light is 30 ft above the ground, and the man's shadow on the ground is 5 ft long, how tall is the man?