Accel Precalc Worksheet #3: Vector Word Problems Name _____
Unit #8: Extended Trigonometry
Lesson 8

1. Two forces of magnitude 40 Newtons (n) and 60 Newtons act on an object at angles of 30° and -45 with the positive x-axis as shown in the figure. Find the direction and magnitude of the resultant force.

2. Two forces of magnitude 30 N and 70 N act on an object at angles of 45° and 120° with the positive x-axis as shown in the figure. Find the direction and magnitude of the resultant force.

3. A weight of 1000 lb is suspended from two cables as shown in the figure. What is the tension of the two cables?

4. A weight of 800 pounds is suspended from two cables as shown. What is the tension of the cables.?

5. A tightrope walker located at a certain point deflects the rope as indicated in the figure. If the weight if the tightrope walker is 150 lb, how much tension is in each part of the rope?