Chapter 3 Parallelogram Method of Vector Addition

Directions: Sketch out the following vectors including what is listed below:

1. Draw a coordinate axis system using a ruler and pencil
2. Draw and label each of the vectors according to the scale provided
3. Use the parallelogram method to determine the vector resultant. Draw and label the resultant.
4. Convert the resultant to Newtons using the scale provided and place a key on the drawing.

1. A 12 N force acts at 25 degrees and an 8 N force acts at 65 degrees. Determine the magnitude and direction (including angle) of the resultant. Scale is 1cm = 1N

2. A100 N force acts at 90 degrees and a 60 N force acts at 150 degrees. Determine the magnitude and direction (including angle) of the resultant. Scale is 1cm = 10 N

3. A 180 N force acts at 190 degrees and a 140 N force acts at 260 degrees. Determine the magnitude and direction (including angle) of the resultant. Scale is 1cm = 10N

4. A 200 N force acts at 250 degrees and a 300 N force acts at 280 degrees. Determine the magnitude and direction (including angle) of the resultant. Scale is 1cm = 10N