Vector Sums Magnitude and Direction - Guided Lesson

Complete the following problems:

1) Two forces with magnitudes of 18 pounds and 38 pounds are applied to the same fixed object, perpendicular to each other. Calculate the magnitude of the resultant force to two decimal places.

2) A vector u has a magnitude of 17 and a direction of 0° . A vector v has a magnitude of 10 and a direction of 70° . Find the direction and magnitude of u + v to the nearest whole values.

3) Two forces with magnitudes of 22 pounds and 40 pounds are applied to an object. The magnitude of the resultant is 20 pounds. Find the measurement of the angle between the resultant vector and the vector with 22 pounds force to the nearest whole degree.