Problem 1: Joshua jogs 225 m North, then 340 m West, and then 450 m South. Find the magnitude and direction of the resultant displacement.

Problem 2: Find the y-component and the magnitude of the vector when it is in the direction of 30⁰ counterclockwise from the positive x-axis and its x-component of A is 10 m.

For numbers 3 to 5, find the magnitude of the vector A when

Problem 3: A = 34î + 6k̂

Problem 4: A = -12î - 4ĵ - 3k̂

Problem 5: A = 24î + 11ĵ

To God be the glory!