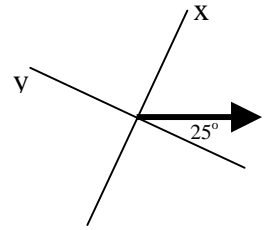


Recitation Instructor (circle one): Moe Larry Curly Groucho Chico Harpo

Class time (circle one): 10:30 11:30

QUIZ #3

- 1) Find the components of the acceleration vector shown in the figure. Its magnitude is 40 m/s^2 . Its angle with respect to the negative y-axis is 25° .



- 2) $\vec{A} = 3.0\hat{i} + 4.0\hat{j}$ and \vec{B} has a magnitude of 5.0 and makes an angle of 200° with respect to the positive x-axis. Find $\vec{C} = \vec{A} - \vec{B}$ in component form **and** in magnitude/angle form.

- 3) Initially, a meteorite is observed to be at an altitude of 730 m and moving at an angle of 37.0° below the horizontal. It hits the ground 5.00 s later. **(a)** What was the initial speed of the meteorite? **(b)** How far had it traveled horizontally when it hit?

