Name: _____

Quiz 8

This quiz is graded out of 8 marks. No books, calculators, notes or cell phones are allowed. You must show all your work, the correct answer is worth 1 mark the remaining marks are given for the work. If you need more space for your answer use the back of the page.

Question 1. §3.1 #27 **Only** use vectors to solve the following. Let P be the point $(1,3,7)$. If the point $(4,0,-6)$ is the midpoint of the line segment connecting P and Q, what is Q?

Question 2. §3.2 #13
Suppose that a vector $\vec{a}$ in the xy-plane has a length of 9 units and points in a direction that is $120°$ counterclockwise from the positive x-axis, and a vector $\vec{b}$ in that plane has a length of 5 units and points in the positive y-direction. Find $\vec{a} \cdot \vec{b}$.