## Quiz $1 \quad$ Calculus $3 \quad$ 8/29/2012

Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. Suppose $\mathbf{v}=\langle 8,-4\rangle$ and $\mathbf{w}=\langle-4,6\rangle$. Express $3 \mathbf{v}-\mathbf{w}$ in the form $\langle a, b\rangle$.
2. Consider the points $P(1,5,0)$ and $Q(0,7,2)$. Find two unit vectors parallel to $\overline{P Q}$, and write them in the form $a \mathbf{i}+b \mathbf{j}+c \mathbf{k}$.
