Quiz 6

Name: _____

1. Let $\mathbf{a} = (1, 3)$, $\mathbf{b} = (2, 1)$, $\mathbf{c} = (-3, 4)$ Then find the following

   (a) $\mathbf{a} + 3\mathbf{b}$

   (b) The length of $\mathbf{c}$.

   (c) $\mathbf{a} \cdot \mathbf{b}$

   (d) The angle between $\mathbf{a}$ and $\mathbf{b}$.

2. Let $\mathbf{r}(t) = t^3\mathbf{i} + t^2\mathbf{j}$. Then find the following

   (a) The velocity vector $\mathbf{v}(t)$.

   (b) The acceleration vector $\mathbf{a}(t)$.

   (c) The speed.

   (d) A curve that moves over the same set of points but in the opposite direction.

   (e) An x-y equation for the curve.