

Quiz 8

Name: _____

1. Which of the following do NOT make sense?

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

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

(c) $|\mathbf{a}|(\mathbf{b} \times \mathbf{c})$

(d) $(\mathbf{a} \times \mathbf{b}) + 2005$

2. Find the equation of the plane through the point $(2, -3, 2)$ and parallel to the plane containing the vectors $4\mathbf{i} + 3\mathbf{j} - \mathbf{k}$ and $2\mathbf{i} - 5\mathbf{j} + 6\mathbf{k}$.

3. An object is moved along the curve

$$\mathbf{r}(t) = (t + 1) \cos\left(\frac{\pi}{4}t\right) \mathbf{i} + t \sin\left(\frac{\pi}{4}t\right) \mathbf{j}$$

by a constant force $\mathbf{F} = 5\mathbf{i} + 8\mathbf{j}$. How much is the work done from $t = 0$ to $t = 1$?