

**Quick Hit 12**

1. Consider the vectors  $\vec{v} = 3\vec{i} - 2\vec{j}$  and  $\vec{w} = -\vec{i} + 4\vec{j}$ . Compute the following

(a)  $\vec{v} \cdot \vec{w}$

(b)  $\vec{v} \cdot 2\vec{w}$

(c)  $(-5\vec{v} + 13\vec{w}) \cdot \vec{v}$

2. Consider the vectors  $\vec{v}$  and  $\vec{w}$  drawn below, with  $\|\vec{v}\| = 3$  and  $\|\vec{w}\| = 5$ . Compute  $\vec{v} \cdot \vec{w}$

