

## DOT PRODUCT

Find the dot product  $\vec{u} \cdot \vec{v}$

1. 
$$\vec{u} = 2\hat{i} + 3\hat{j} - 2\hat{k}$$
$$\vec{v} = -4\hat{i} + 4\hat{j} + 3\hat{k}$$

2. 
$$\vec{u} = 4\hat{i} + 2\hat{j} + \hat{k}$$
$$\vec{v} = -\hat{i} + 4\hat{j} - 2\hat{k}$$

3. 
$$\vec{u} = 2\hat{i} + 3\hat{j}$$
$$\vec{v} = -4\hat{i} + 4\hat{j}$$

4. 
$$\vec{u} = 5\hat{i} + \hat{j}$$
$$\vec{v} = 3\hat{i} + 2\hat{j}$$

5. 
$$\vec{u} = \hat{i}$$
$$\vec{v} = \hat{j}$$