

12.4 Cross and Triple Products

$$\mathbf{u} = \{1,0,0\} \quad \mathbf{v} = \{0,1,0\} \quad \mathbf{w} = \{0.2,0.2,0.75\}$$

$$\text{Base Area} = \|\mathbf{a}\| = \|\bar{\mathbf{u}} \times \bar{\mathbf{v}}\| = 1$$

$$\text{Height} = \text{proj}_{\bar{\mathbf{a}}} \bar{\mathbf{u}} \times \bar{\mathbf{v}} = 0.75$$

$$\text{Volume} = |\bar{\mathbf{u}} \times \bar{\mathbf{v}} \cdot \bar{\mathbf{w}}| = |0.75| = 0.75$$

