

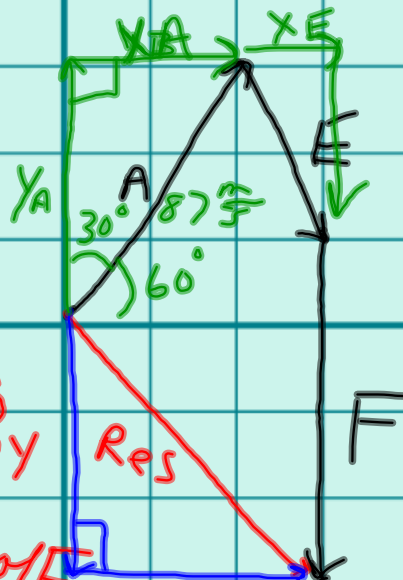
problem ① $A + E + F$

$$-75 \frac{m}{s}$$

$$-y_A = y_A + y_E + F =$$

Graphically:

$$108 \frac{m}{s} @ 45^\circ S of E$$



$$R_x = x_A + x_E$$

$$44 \frac{m}{s} + 75 \frac{m}{s}$$

$$= 119 \frac{m}{s}$$

$$\Delta A \quad y_A : \cos 30^\circ = \frac{y_A}{87 \frac{m}{s}} = 75 \frac{m}{s}$$

$$x_A : \sin 30^\circ = \frac{x_A}{87 \frac{m}{s}} = 44 \frac{m}{s}$$

Resultant:

$$\sqrt{\left(75 \frac{m}{s}\right)^2 + \left(75 \frac{m}{s}\right)^2} = 106 \frac{m}{s}$$

$$\theta = \tan^{-1} \frac{75}{75} = 45^\circ E of S$$

