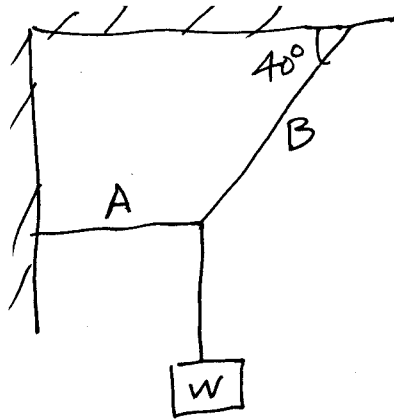
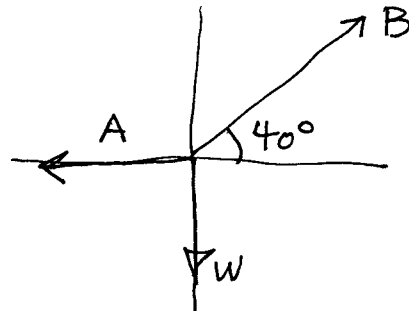


4.1



Free-body diagram:

Solving in terms of W by using components:

$$\sum F_y = 0 \Rightarrow B \sin 40^\circ - W = 0$$

$$B = \frac{W}{\sin 40^\circ} = \boxed{1.556 W} \quad (1)$$

$$\sum F_x = 0 \Rightarrow -A + B \cos 40^\circ = 0$$

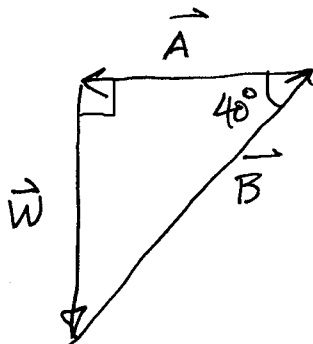
$$A = B \cos 40^\circ = 0.766 B \quad (2)$$

Substituting (1) into (2):

$$A = 0.766 (1.556 W)$$

$$\boxed{A = 1.192 W}$$

Solving by drawing the addition of the three vectors to $= 0$ (which we can do because there is a 90° \angle):



From the geometry

$$W = B \sin 40^\circ$$

$$B = \frac{W}{\sin 40^\circ} = \boxed{1.556 W}$$

$$\frac{W}{A} = \tan 40^\circ$$

$$A = \frac{W}{\tan 40^\circ} = \boxed{1.192 W}$$