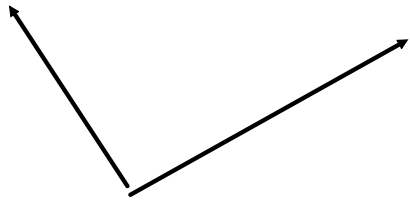
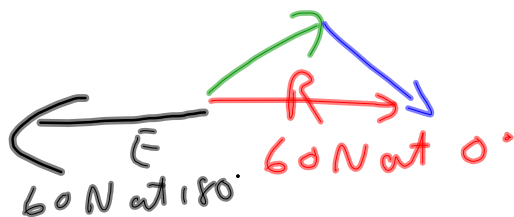
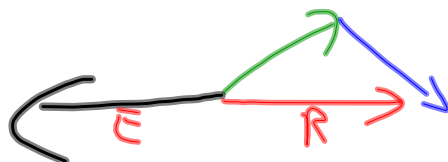
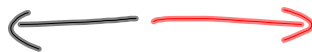


$F_1 = 85 \text{ N at } 33^\circ$   
 $F_2 = 57 \text{ N at } 120^\circ$

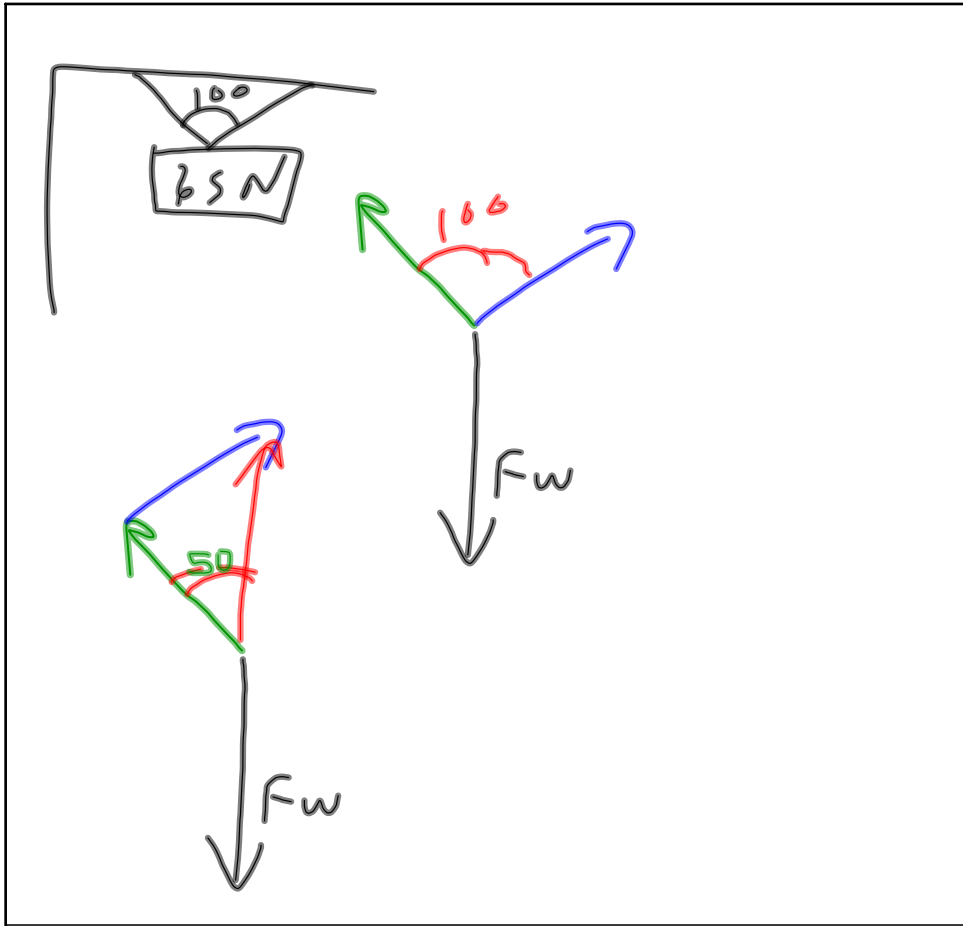


Oct 7-7:58 AM

$\Sigma$  equilibrant  
 $\vec{E} = -\vec{R}$   
↑ opposite  
180



Oct 7-8:11 AM



Oct 7-8:17 AM

A boat traveling at 3.5 m/s heads across stream. Where does the boat end up if the current is at 2.3 m/s?

$v_b = 3.5 \text{ m/s}$   
 $v_c = 2.3 \text{ m/s}$   
 $v_R = ?$

$v_R = \sqrt{(3.5 \text{ m/s})^2 + (2.3 \text{ m/s})^2} = 4.2 \text{ m/s}$   
 $\tan \theta = \frac{2.3 \text{ m/s}}{3.5 \text{ m/s}} = 33^\circ$   
 $v_R = 4.2 \text{ m/s } @ 33^\circ$   
 33' downstream

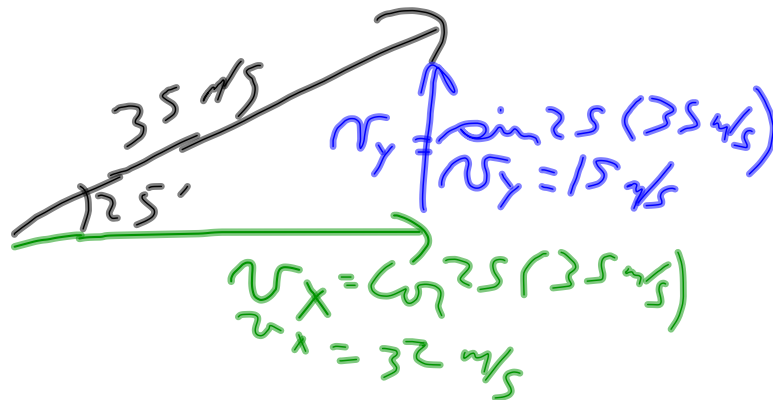
Oct 7-7:06 AM

A ball is kicked at 35 m/s at an angle of  $25^\circ$  with the horizontal. What are the horizontal and vertical components of the velocity?

$$v_b = 35 \text{ m/s at } 25^\circ \text{ ground}$$

$$v_x = ?$$

$$v_y = ?$$



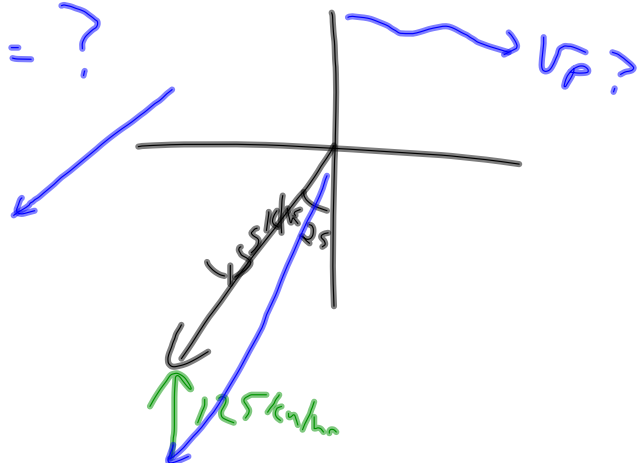
Oct 7-7:07 AM

A plane (billy the plane, that is) wants to travel at 455 km/hr at  $245^\circ$ . Where should it head if it encounters a wind of 125 km/hr blowing from the South?

$$v_R = 455 \text{ km/hr at } 245^\circ$$

$$v_w = 125 \text{ km/hr at } 90^\circ$$

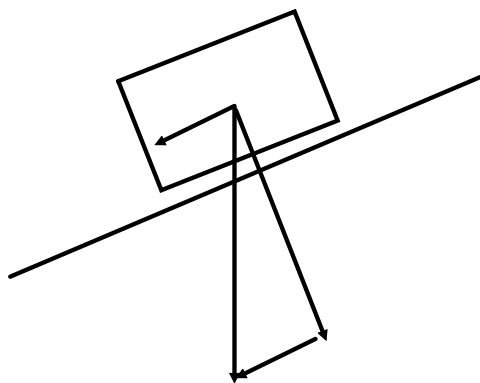
$$v_P = ?$$



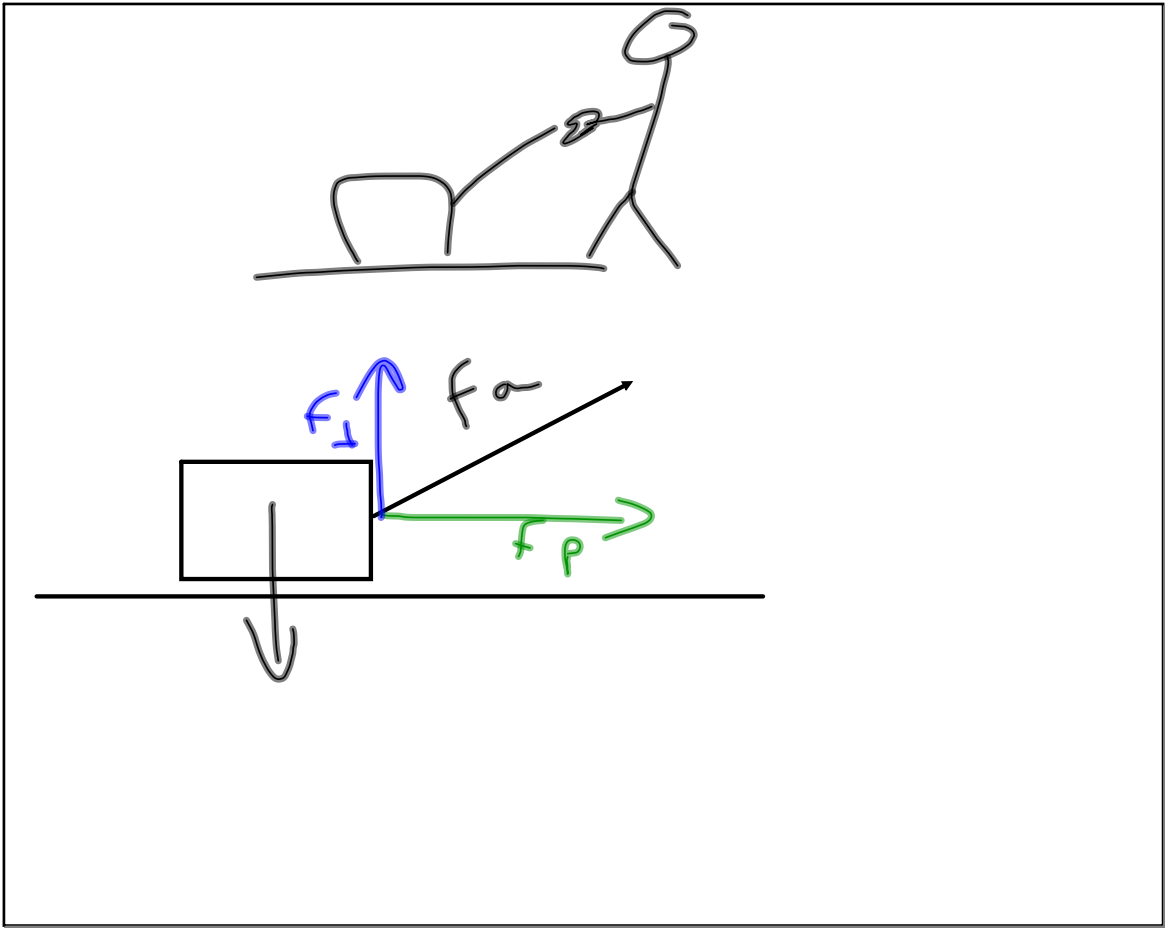
Oct 7-7:05 AM

a) A plane heads due east ( $180^\circ$ ) at 425 km/hr. Where does the plane end up if it encounters a wind blowing at 75 km/hr from the southeast ( $135^\circ$ )?....b) Where should the plane head if it wants to end up going due east?

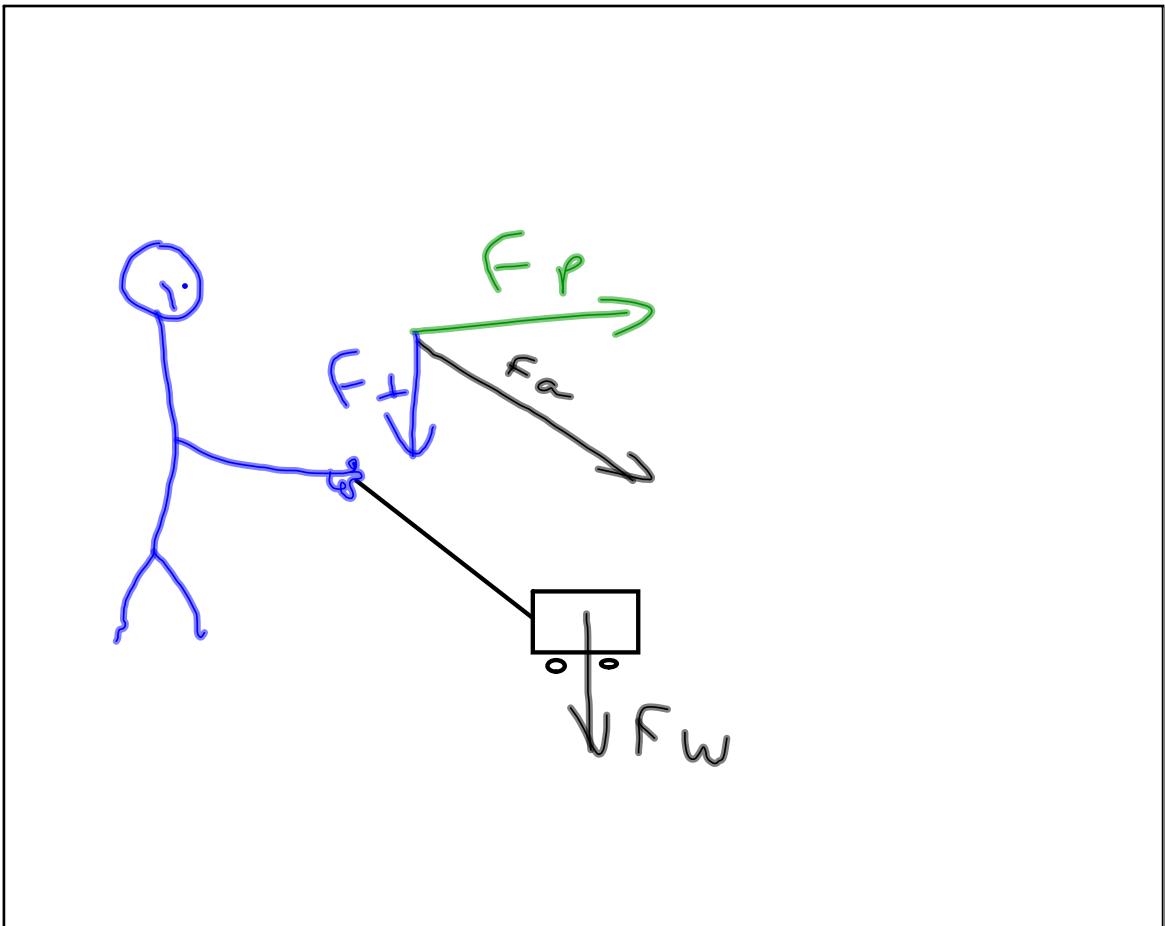
Oct 7-7:08 AM



Oct 7-8:02 AM



Oct 7-8:05 AM



Oct 7-8:07 AM