

## Just for Practice 4r7

1. Find the resultant of 66 N acting at  $107^\circ$  and 77 N at  $191^\circ$  using  $\Sigma x$ 's and  $\Sigma y$ 's.
2. Two forces act on an object. One force is 77N at  $295^\circ$  and the other one is 67 N at  $355^\circ$ . What is the resultant? (find graphically)
3. A 87.0 kg box is on a ramp that makes an angle of  $33.0^\circ$  with the ground. What are the parallel( $F_p$ ) and perpendicular( $F_N$ ) forces applied by the box?
4. A ball is kicked at  $22.0^\circ$  from the ground at 65.0 m/s. What are the horizontal and vertical components of its velocity?
5. Draw the point and vector diagram for a 78 kg sign being suspended by two cords. The left cord is at a  $35^\circ$  angle with the horizontal and the right cord is at a  $46^\circ$  angle with the horizontal. (solve graphically)
6. A boat can travel 4.4 m's in still water. Where should it head if it wants to go  $22^\circ$  upstream and the current is at 2.6 m/s. (solve graphically)