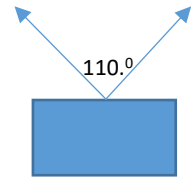


## Vector Review 4b

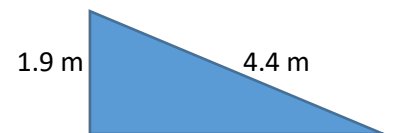
- 1) A 74 N sign is suspended by two wires that make an angle of  $110.0^\circ$  between them. How much force does each wire have to hold to support the sign?



- 2) A boat can travel 4.4 m/s in still water. What is the resulting velocity of the boat if it heads across a stream that has a current of 2.7 m/s?

- 3) A ball is kicked at 19 m/s at an angle of  $44^\circ$  with the horizontal. What are the horizontal and vertical components of the velocity?

- 4) A 55 N box is on a ramp that is 4.4 m long and 1.9 m high. What part of its weight is parallel and perpendicular to the ramp's surface?



- 5) A small boy pulls a box across the floor with a rope that makes an angle of  $33^\circ$  with the ground. What is the horizontal and vertical components of the pull?