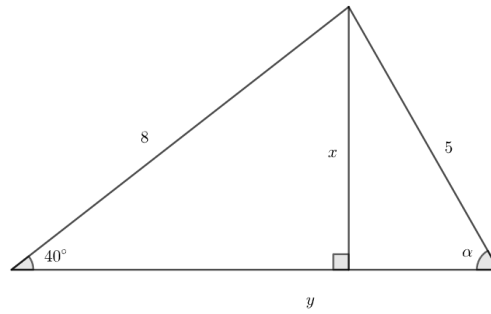


Name:  
Group 1  
Result:

1.  
Consider the following triangle:

*(3 points)*



Find  $x$ ,  $y$  and  $\alpha$ .

**2.***(3 points)*

Two buildings are 54 metres apart. From the top of the smaller building the angle of elevation to the top of the other building is  $19^\circ$  and the angle of depression to the bottom of the other building is  $42^\circ$ . Calculate the height of the taller building.

**3.***(4 points)*

A ship sails 10 *km* on a bearing of 140 from port *A* and then a further 5 km East to reach port *B*. Find the direct distance between the ports and the bearing from port *B* to port *A*.