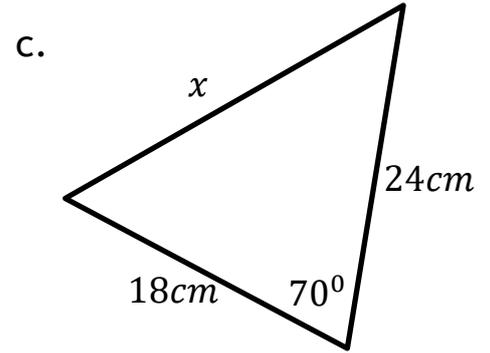
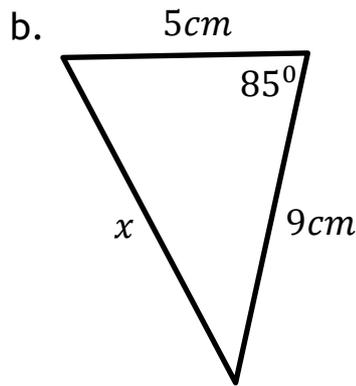
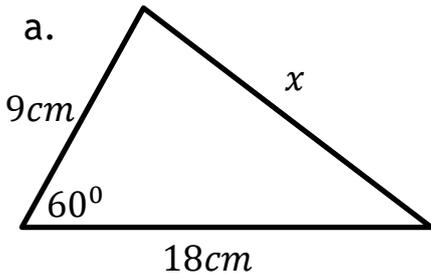
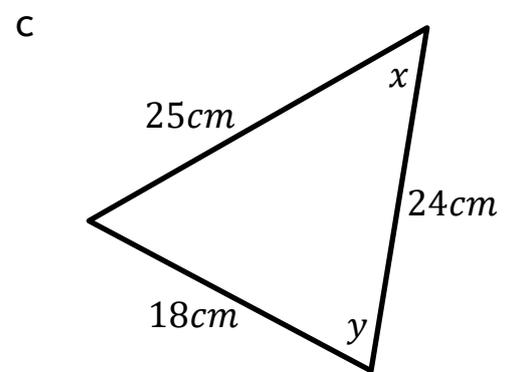
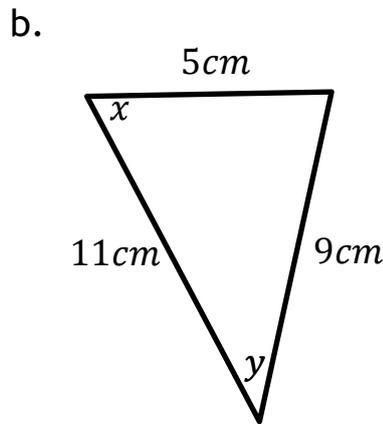
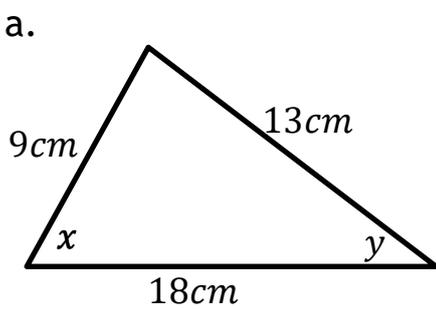


## Cosine Rule

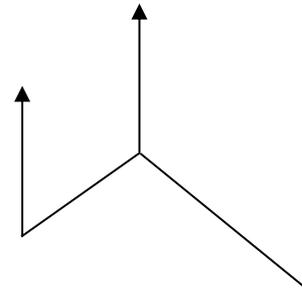
1. Find the length of the side marked  $x$ :



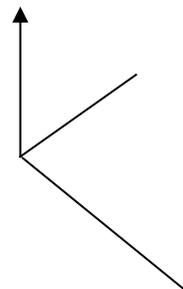
2. Find the size of the angles marked  $x$  and  $y$  in each of the triangles below



3. A boat traveled on a bearing of  $70^\circ$  for  $60\text{km}$  then a further  $100\text{km}$  on a bearing of  $130^\circ$ . How far are they from the port?



4. Boat Alpha leaves the port on a bearing of  $60^\circ$  for  $70\text{km}$ . Boat Delta leaves the port on a bearing of  $130^\circ$  for  $100\text{km}$ . How far are the boats apart at this point?



5. A gardener wants to build a fence around a piece of land shaped as a triangle. The fence is sold in packs of  $1.8\text{m}$  at £32 a pack. Calculate the total cost to fence the perimeter.

