

1. Find the following ratios using your calculator (4 decimal places)

$$\sin 14^\circ = \underline{\hspace{2cm}}$$

$$\sin 48^\circ = \underline{\hspace{2cm}}$$

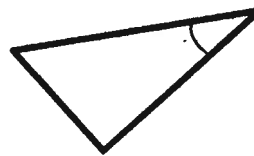
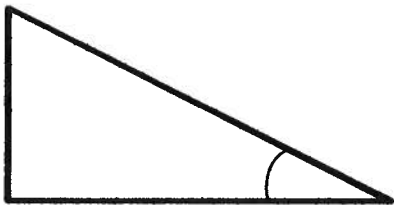
$$\sin 89^\circ = \underline{\hspace{2cm}}$$

$$\sin 0^\circ = \underline{\hspace{2cm}}$$

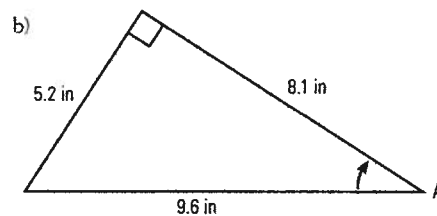
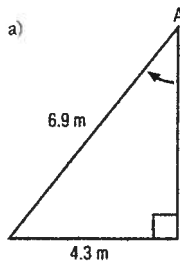
$$\sin 23^\circ = \underline{\hspace{2cm}}$$

$$\sin 71^\circ = \underline{\hspace{2cm}}$$

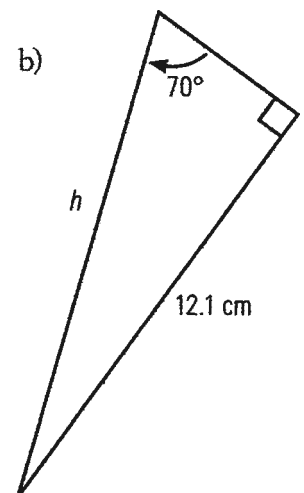
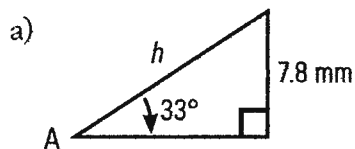
2. Please label the following triangles with opposite, adjacent, and hypotenuse.



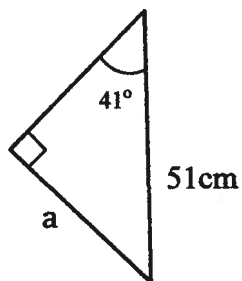
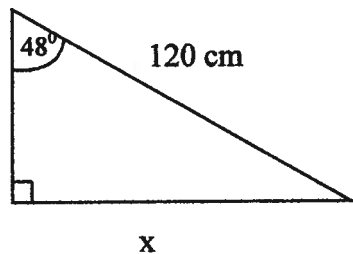
3. Calculate the value of  $\sin A$  for each of the following to 4 decimal places.



4. Find the length of the hypotenuse in the following diagrams (1 decimal place)



5. Find the missing side in the following triangles.



6. How high is a weather balloon tied to the ground if it is attached to a 15-metre string and the angle between the string and the ground is  $35^\circ$ ?

7. A ramp with a length of 21.2 metres has an angle of elevation of  $15^\circ$ . How high up does it reach?

8. A ladder 8.5 metres long makes an angle of  $72^\circ$  with the ground. How far up the side of a building will it reach?

