

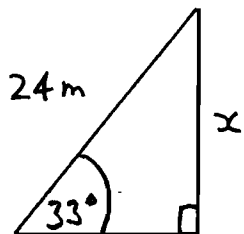
BASIC TRIGONOMETRY

EXERCISE

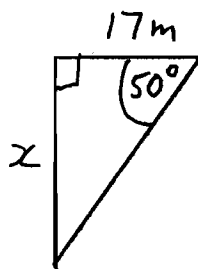
Exercise A

Find the length of side x

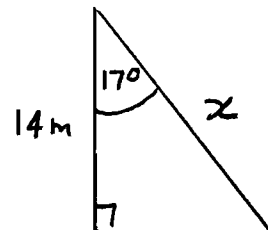
1)



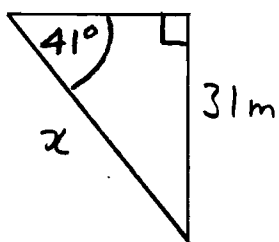
2)



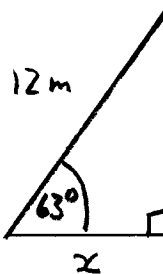
3)



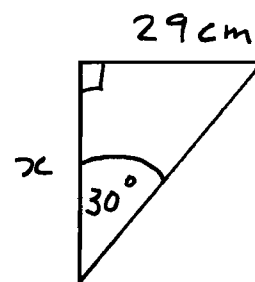
4)



5)



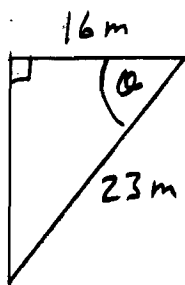
6)



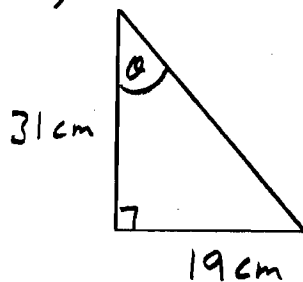
Exercise B

Find the size of angle θ

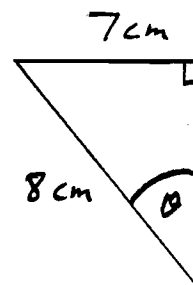
1)



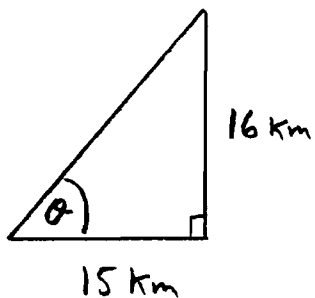
2)



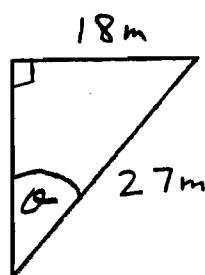
3)



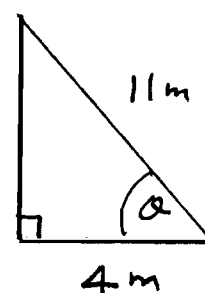
4)



5)

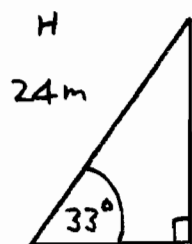


6)



BASIC TRIGONOMETRYEXERCISEExercise A

1)



$$x = O$$

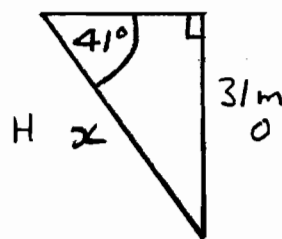
$$\sin = \frac{O}{H}$$

$$\sin 33^\circ = \frac{x}{24}$$

$$24 \sin 33^\circ = x$$

$$x = 13.07 \text{ m}$$

4)



$$\sin = \frac{O}{H}$$

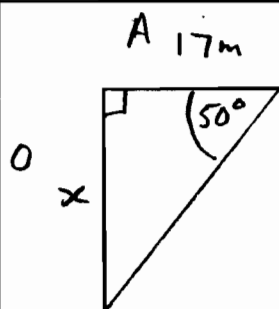
$$\sin 41^\circ = \frac{31}{x}$$

$$x \sin 41^\circ = 31$$

$$x = \frac{31}{\sin 41^\circ}$$

$$x = 47.25 \text{ m}$$

2)



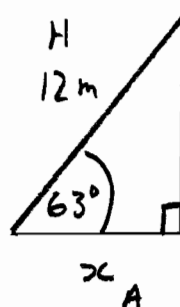
$$\tan = \frac{O}{A}$$

$$\tan 50^\circ = \frac{x}{17}$$

$$17 \tan 50^\circ = x$$

$$x = 20.26 \text{ m}$$

5)



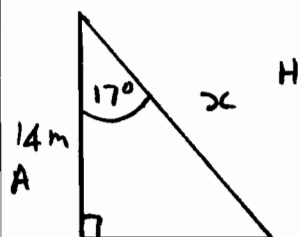
$$\cos = \frac{A}{H}$$

$$\cos 63^\circ = \frac{x}{12}$$

$$12 \cos 63^\circ = x$$

$$x = 5.45 \text{ m}$$

3)



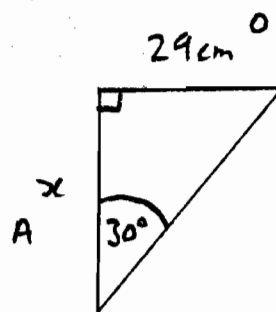
$$\cos = \frac{A}{H}$$

$$\cos 17^\circ = \frac{14}{x}$$

$$x \cos 17^\circ = 14$$

$$x = \frac{14}{\cos 17^\circ} = 14.64 \text{ m}$$

6)



$$\tan = \frac{O}{A}$$

$$\tan 30^\circ = \frac{29}{x}$$

$$x \tan 30^\circ = 29$$

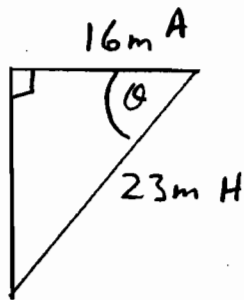
$$x = \frac{29}{\tan 30^\circ} = 50.23 \text{ cm}$$

BASIC TRIGONOMETRY

EXERCISE

Exercise B

1)

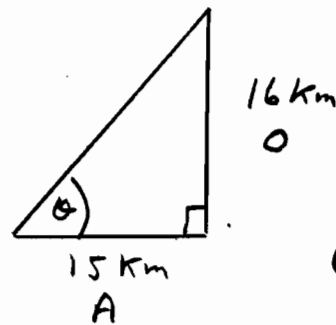


$$\cos = \frac{A}{H}$$

$$\cos \theta = \frac{16}{23}$$

$$\theta = \cos^{-1}\left(\frac{16}{23}\right) = 45.9^\circ$$

4)

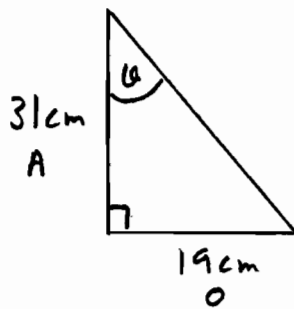


$$\tan = \frac{O}{A}$$

$$\tan \theta = \frac{16}{15}$$

$$\theta = \tan^{-1}\left(\frac{16}{15}\right) = 46.8^\circ$$

2)

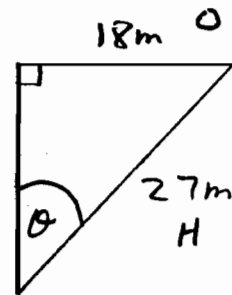


$$\tan = \frac{O}{A}$$

$$\tan \theta = \frac{19}{31}$$

$$\theta = \tan^{-1}\left(\frac{19}{31}\right) = 31.5^\circ$$

5)

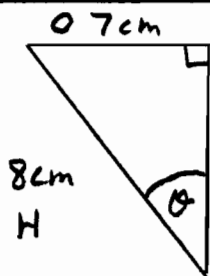


$$\sin = \frac{O}{H}$$

$$\sin \theta = \frac{18}{27}$$

$$\theta = \sin^{-1}\left(\frac{18}{27}\right) = 41.8^\circ$$

3)



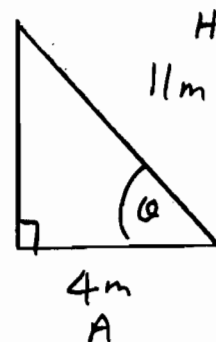
$$\sin = \frac{O}{H}$$

$$\sin \theta = \frac{7}{8}$$

$$\theta = \sin^{-1}\left(\frac{7}{8}\right)$$

$$\theta = 61.0^\circ$$

6)



$$\cos = \frac{A}{H}$$

$$\cos \theta = \frac{4}{11}$$

$$\theta = \cos^{-1}\left(\frac{4}{11}\right)$$

$$\theta = 68.7^\circ$$

H