

# Review of Trig Ratios

1 Find the  $\sin \theta$  each angle.

- (a)  $15^\circ$  (b)  $30^\circ$  (c)  $45^\circ$  (d)  $60^\circ$  (e)  $75^\circ$  (f)  $90^\circ$

2 Find the cosine of each angle.

- (a)  $15^\circ$  (b)  $30^\circ$  (c)  $45^\circ$  (d)  $65^\circ$  (e)  $75^\circ$  (f)  $90^\circ$

3 Find the measure of each angle.

- (a)  $\sin A = 0.9135$  (b)  $\cos B = 0.8746$  (c)  $\tan D = 9.5144$

4 Find each angle to the nearest degree.

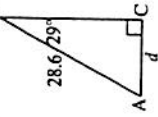
- (a)  $\cos A = 0.3842$  (b)  $\sin B = 0.2487$  (c)  $\tan P = 0.3920$

5 Find the measure indicated.

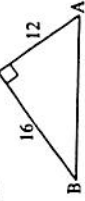
- (a)  $a$



- (b)  $d$



- (c)  $\angle A$



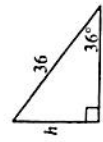
6 For each diagram,

- decide on the trigonometric ratio you use to find  $h$
- find the value of  $h$ .

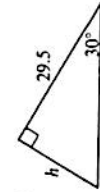
- (a)



- (b)



- (c)



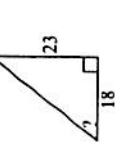
7 For each triangle,

- decide on which trigonometric ratio you will use to find the missing angle
- find the missing angle.

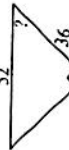
- (a)



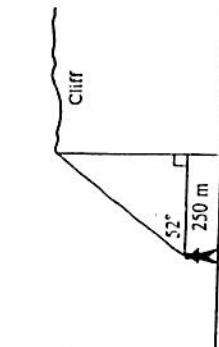
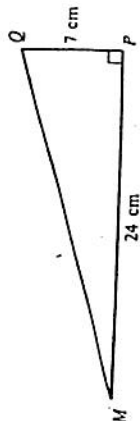
- (b)



- (c)

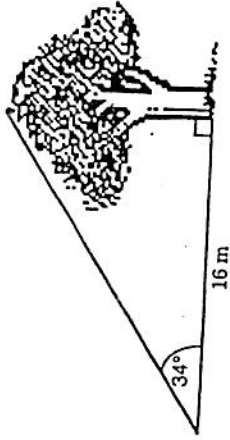


8 In the diagram (below left) find the measures of  $\angle M$  and  $\angle Q$  to the nearest degree.

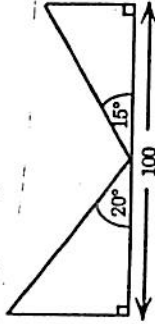


9

A surveyor is standing 250 m from a cliff face (above right). She measures the angle of elevation of the top of the cliff as  $52^\circ$ . How much taller is the cliff than she?



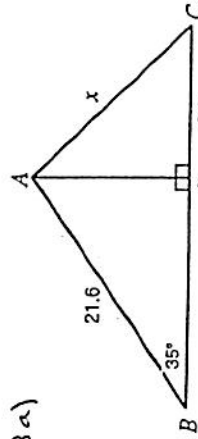
10 Determine the height of a tree casting a 16 m shadow at the same time as the sun's rays make a  $34^\circ$  angle with the ground.



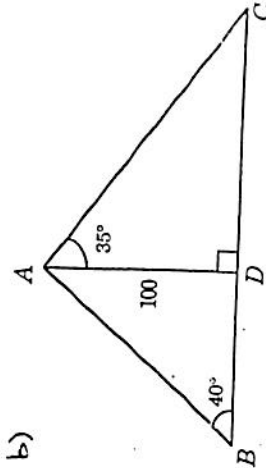
11 Two flagpoles are 100 m apart. The angles of elevation to their tops from a point on the ground half way between the poles are  $20^\circ$  and  $15^\circ$ . How much higher is one pole than the other?

12 A missile tracking station determined that a missile shot at  $40^\circ$  to the ground covered 30 km in approximately a straight line. What ground distance did it cover during this time?

13 a)



b)



In  $\triangle ABC$ ,  $AB = 21.6$  cm,  $CD = 8.2$  cm and  $\angle B = 35^\circ$ . Find the value of  $x$ .

In  $\triangle ABC$ ,  $\angle B = 40^\circ$ ,  $\angle DAC = 35^\circ$  and  $AD = 100$  cm. Find, to the nearest tenth, the length of  $BC$ .

14

A kite is flying on a 125 m string. The string makes an angle of  $35^\circ$  with the ground. How high is the kite?