

TRIGONOMETRIC RATIOS I

REVISION KIT

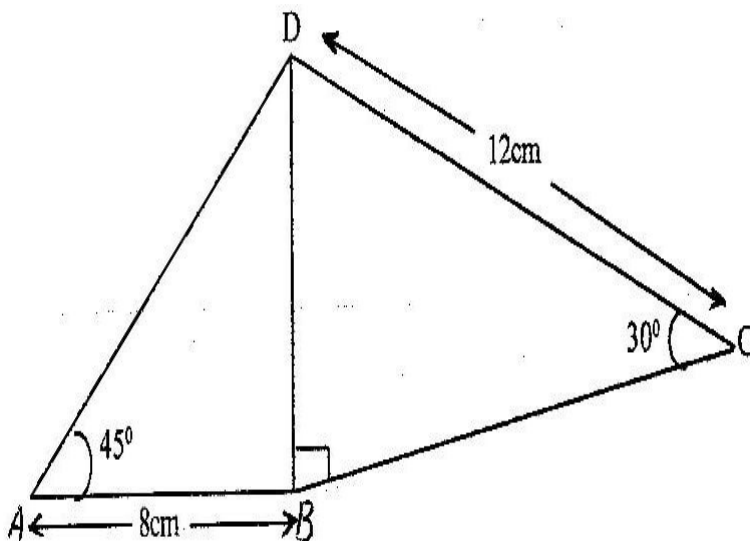
A tower is on a bearing of 030° from a point P and a distance of 100m. From P, the angle of elevation of the top of the tower is 15° and the angle of depression of the foot of the tower is 1° .

- a). Calculate the height of the tower. (4 marks)
b). A point Q is on the same horizontal plane as point P. The tower is on a bearing of 330° from Q and a distance of 70 m. Calculate:

i) The distance from P to Q. (3 marks)

ii) The bearing of P from Q. (3 marks)

The figure below shows a quadrilateral ABCD in which $AB = 8$ cm, $DC = 12$ cm, $\angle BAD = 45^\circ$, $\angle CBD = 90^\circ$ and $\angle BCD = 30^\circ$.



Find:

(a) the length of BD (1 mark)

(b) The size of the angle ADB (2 marks)

Given that $\sin (90 - x)^\circ = 0.8$, where x is an acute angle, find without using mathematical tables the value of $\tan x^\circ$.

A piece of wire is bent into the shape of an isosceles triangle. The base angles are each 48° and the perpendicular height to the base is 6 cm. Calculate, correct to one decimal place, the length of the wire.