

Past Paper Questions – Trigonometry

12.

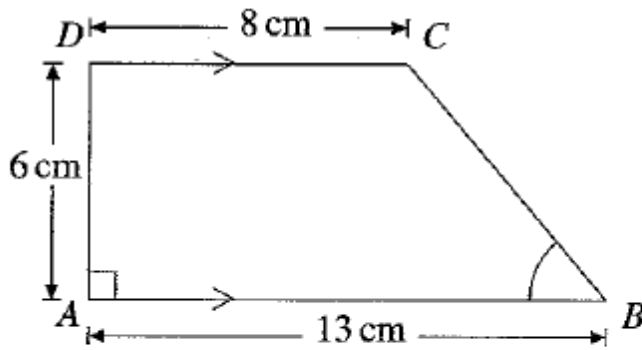


Diagram **NOT** accurately drawn

The diagram shows a trapezium.

$AB$  is parallel to  $DC$ .

Angle  $A = 90^\circ$ .

$AB = 13$  cm,  $AD = 6$  cm and  $CD = 8$  cm.

Calculate the size of angle  $B$ .

Give your answer correct to 1 decimal place.

10.

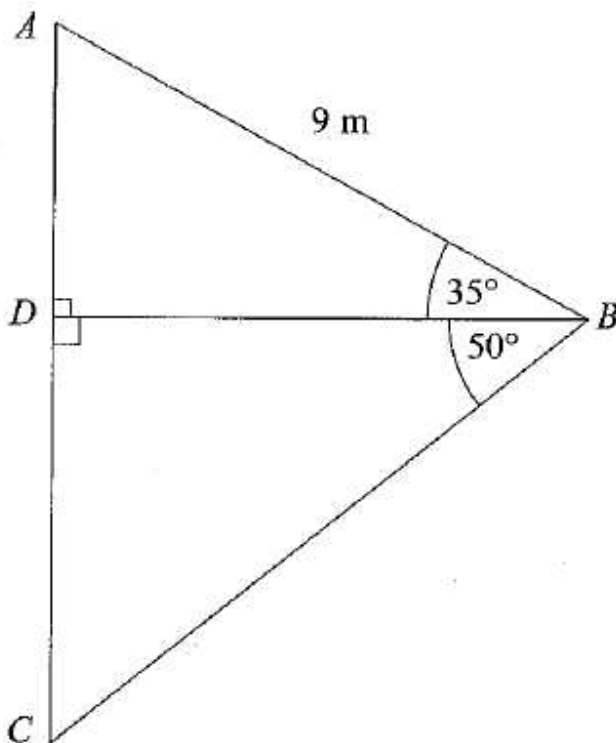


Diagram **NOT** accurately drawn

$ABD$  and  $DBC$  are two right-angled triangles.

$AB = 9$  m.

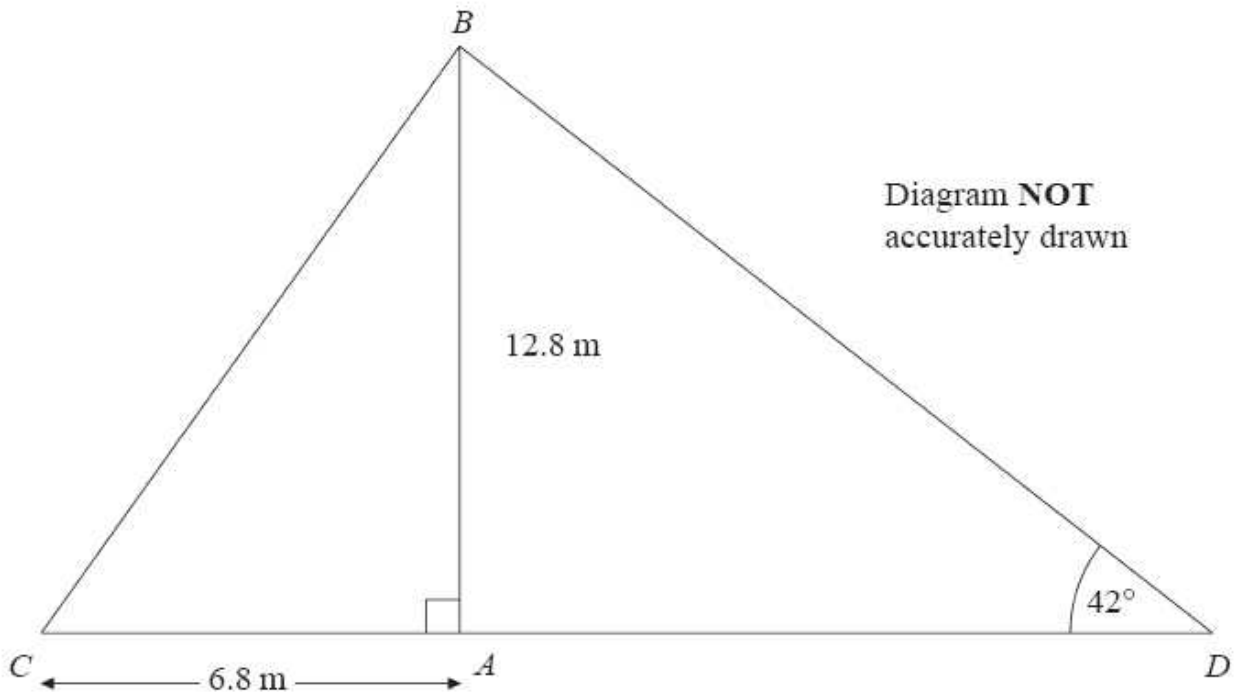
Angle  $ABD = 35^\circ$ .

Angle  $DBC = 50^\circ$ .

Calculate the length of  $DC$ .

Give your answer correct to 3 significant figures.

9. The diagram represents a vertical flagpole,  $AB$ .  
The flagpole is supported by two ropes,  $BC$  and  $BD$ , fixed to the horizontal ground at  $C$  and at  $D$ .



$AB = 12.8$  m.  
 $AC = 6.8$  m.  
 Angle  $BDA = 42^\circ$ .

- (a) Calculate the size of angle  $BCA$ .  
Give your answer correct to 3 significant figures.

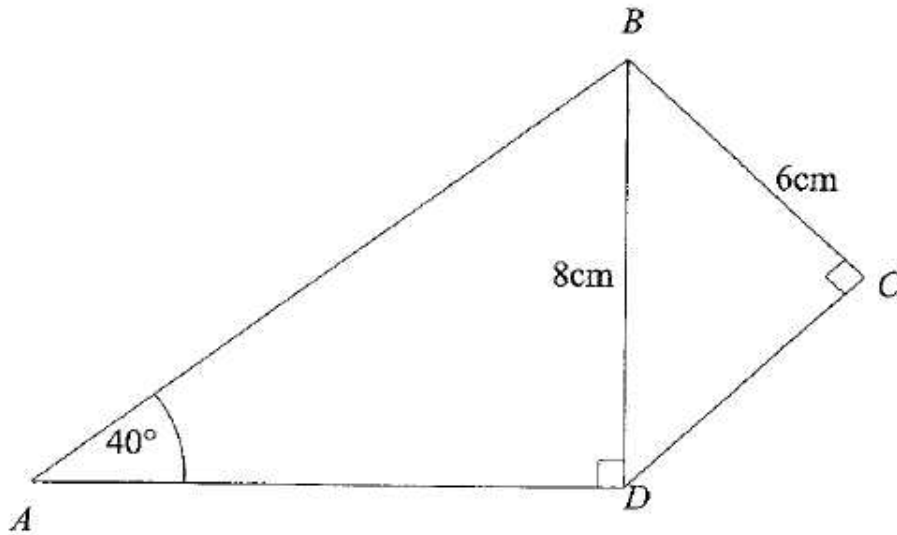
.....  
 (3)

- (b) Calculate the length of the rope  $BD$ .  
Give your answer correct to 3 significant figures.

..... m  
 (3)

10.

Diagram **NOT** accurately drawn.



*ABCD* is a quadrilateral.

Angle  $BDA = 90^\circ$ , angle  $BCD = 90^\circ$ , angle  $BAD = 40^\circ$ .

$BC = 6\text{cm}$ ,  $BD = 8\text{cm}$ .

(a) Calculate the length of *DC*. Give your answer correct to 3 significant figures.

..... cm  
(3)

(b) Calculate the size of angle *DBC*.

Give your answer correct to 3 significant figures.

.....<sup>o</sup>  
(3)

(c) Calculate the length of *AB*. Give your answer correct to 3 significant figures.

..... cm  
(3)