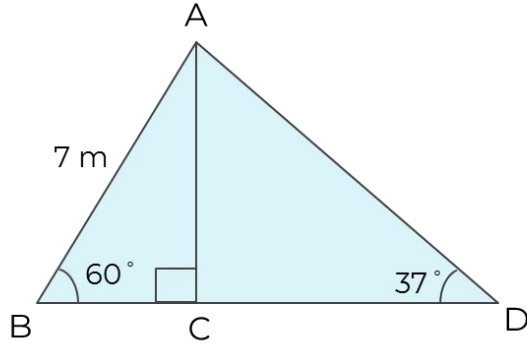# Applying Trigonometry

Maths

Miss Davies

Applying Trigonometry
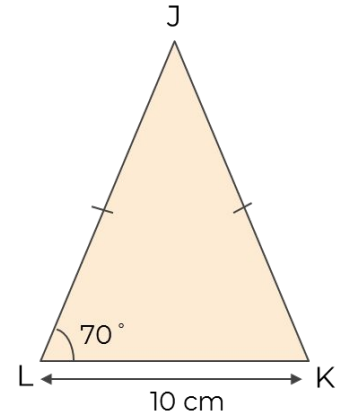
1. a) Find the height of triangle ABC

b) Find the length BD

Give your answer to 1 decimal place

2. JKL is an isosceles triangle.
The length of LK is 10 cm.

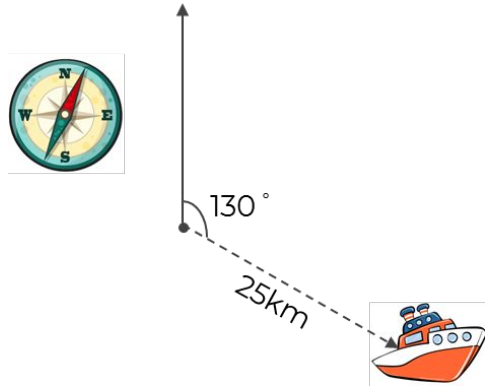a) Find the height of JKL.

b) Hence, find the area.

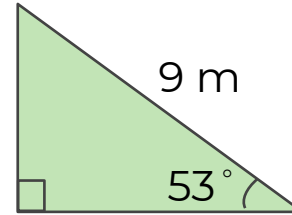Give your answer to 3 significant figures.

Applying Trigonometry

3. A ship travels 25 km on a bearing of 130°.

How far east of its original position is it?
Give your answer to 1 decimal place.

4. Jack wants to fence the perimeter of his triangular field.

a) How much fencing will he need?

b) Fencing is only sold in 1 m lengths costing £2.16 each.
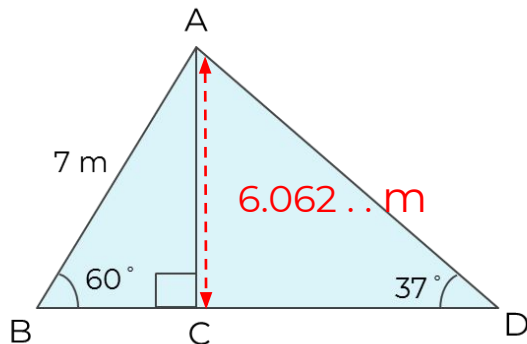How much will it cost to fence the field?

Answers

Applying Trigonometry

1. a) Find the height of triangle ABC

A

7 m

6.062...m

60°   37°

B   C   D

b) Find the length BD

Give your answer to 1 decimal place

11.5 m

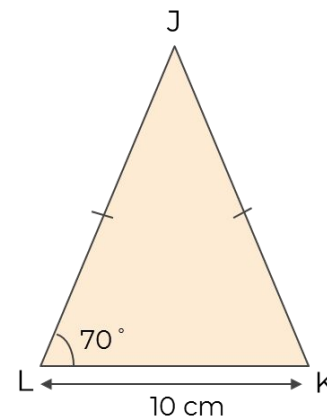2. JKL is an isosceles triangle.

The length of LK is 10 cm.

J

a) Find the height of JKL.

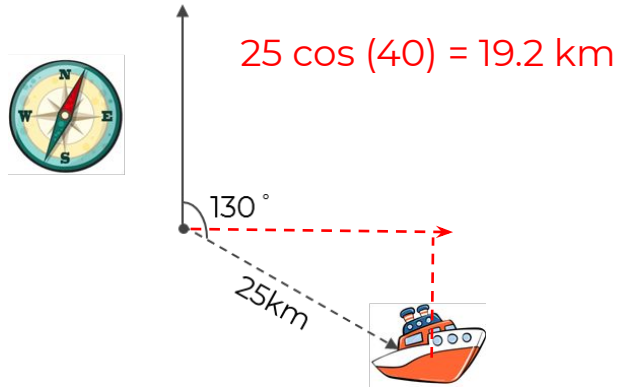13.7 cm (3 s.f)

b) Hence, find the area.

Answers between
68.5 cm² and 68.7 cm²

70°

L   K

10 cm

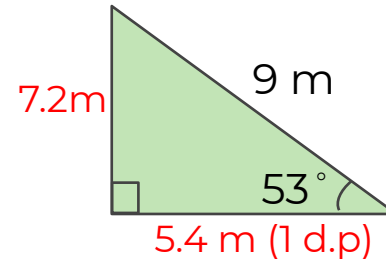Give your answer to 3 significant figures.

Applying Trigonometry

3. A ship travels 25 km on a bearing of 130˚.

25 cos (40) = 19.2 km

130˚

25km

How far east of its original position is it?

Give your answer to 1 decimal place.

4. Jack wants to fence the perimeter of his triangular field.

9 m

7.2m

53˚

5.4 m (1 d.p)

a) How much fencing will he need?

9 + 7.2 + 5.4 = 21.6m

b) Fencing is only sold in 1 m lengths costing £2.16 each.

How much will it cost to fence the field?

22 × £2.16 = £47.52