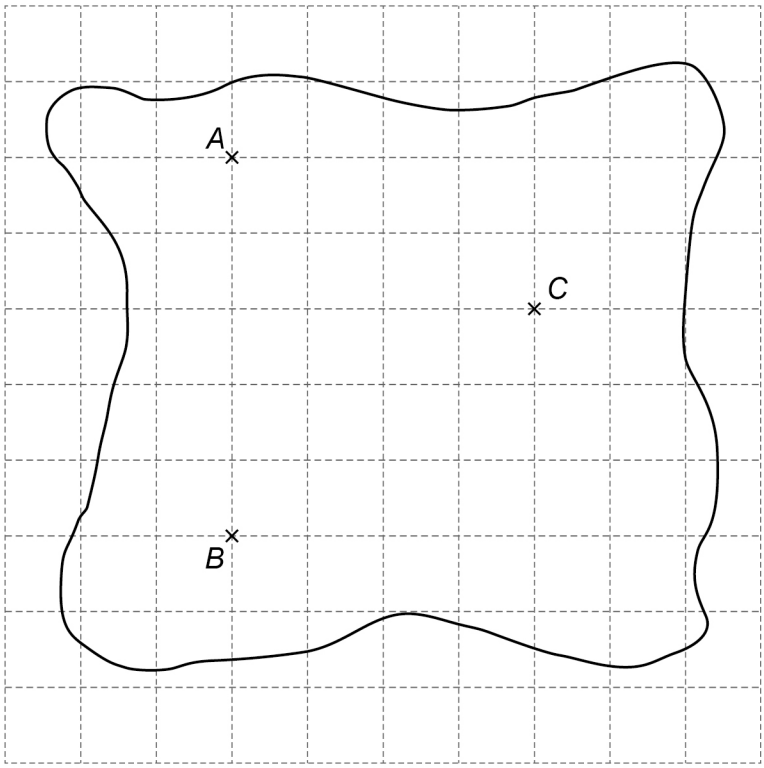
1 A map of an island is shown on a centimetre grid.

A, *B* and *C* are houses.



1 (a) The actual distance between *A* and *B* is 1500 metres.

Show that the scale on the map is 1 : 30 000

[2 marks]

$1500 \times 100 = 150\,000$ cm (1)

$\frac{150\,000}{30\,000} = 5$ which is the same as length AB (5 cm) (1)

1 (b) Work out the actual distance between *A* and *C*.

Give your answer in kilometres.

[4 marks]

AC = 4.5 cm (1)

$4.5 \times 30\,000 = 135\,000$ cm (1)

$135\,000 \text{ cm} \times \frac{1 \text{ m}}{100 \text{ cm}} \times \frac{1 \text{ km}}{1000 \text{ m}}$ (1)

= 1.35 km (1)

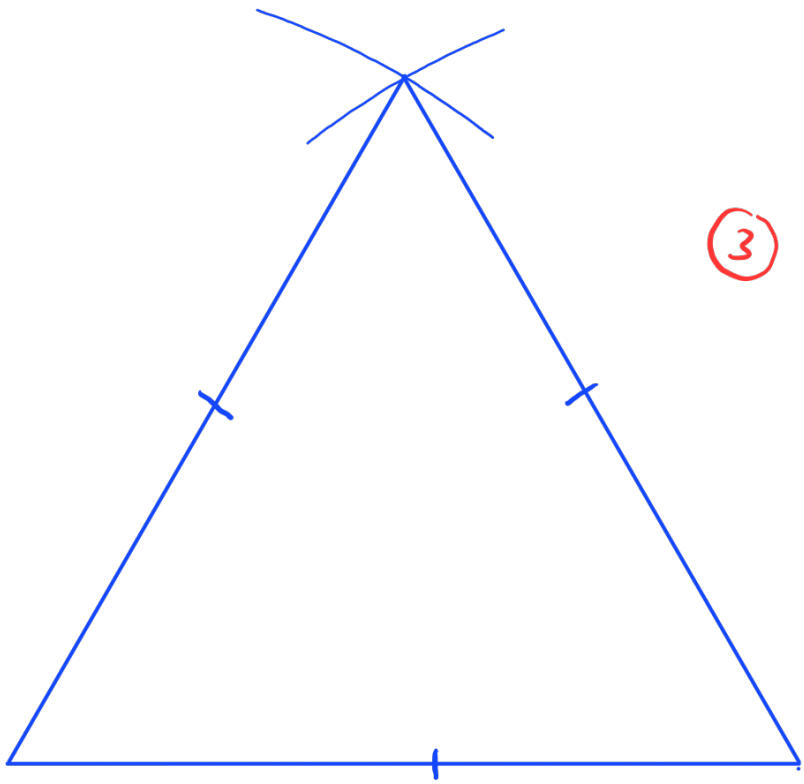
Answer 1.35 km

2 An equilateral triangle has side length 16 metres.

Using ruler and compasses only, construct a scale drawing of the triangle.
Use the scale 1 centimetre represents 2 metres.

[3 marks]

Scale: 1 cm represents 2 m



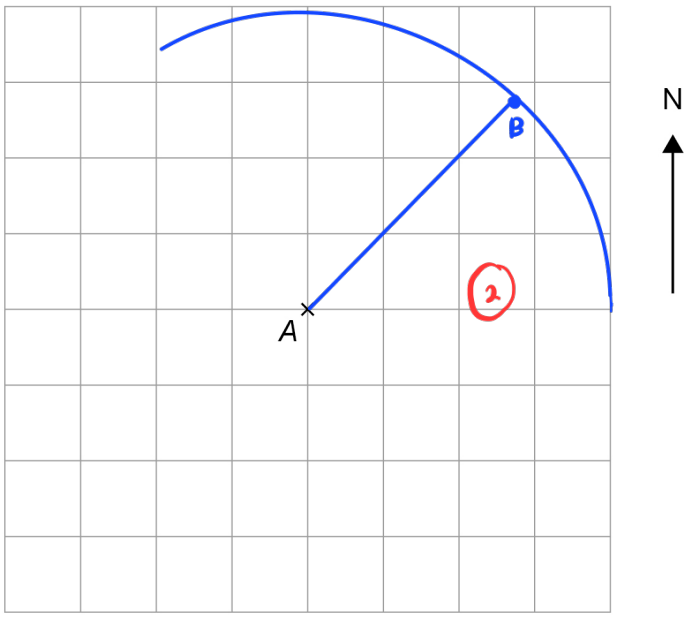
3

3 (a) Point *B* is 400 metres north east of point *A*.

Mark point *B* on the centimetre grid.

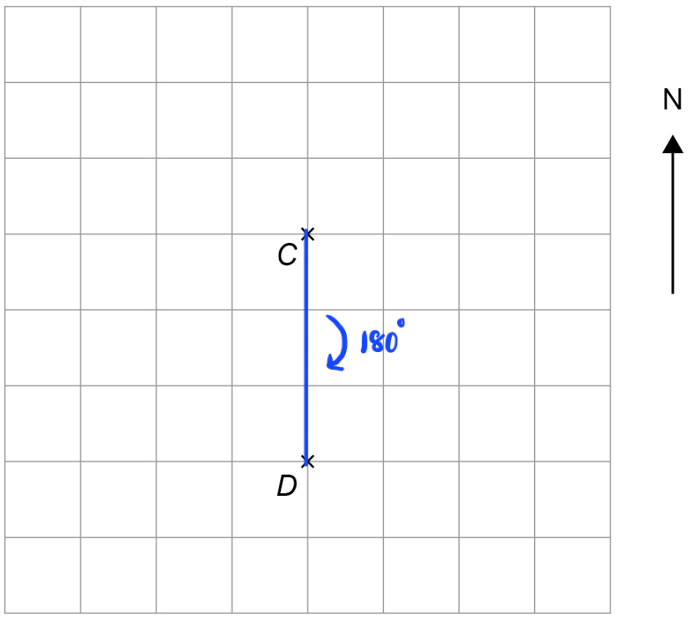
Use a scale of 1 centimetre represents 100 metres.

[2 marks]



Points *C* and *D* are shown on a different centimetre grid.

Scale: 1 : 1000



3 (b) Work out the bearing of *D* from *C*.

[1 mark]

Answer 180 (1) °

3 (c) Work out the actual distance, in metres, of *D* from *C*.

Use the scale 1 : 1000

[1 mark]

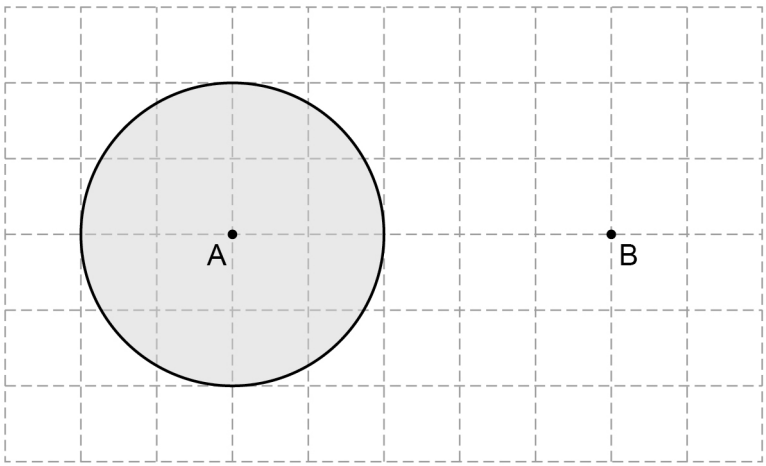
3 cm = 3000 cm

3000 ÷ 100 = 30 m

Answer 30 (1) metres

4 (a) Towns A and B are shown on a centimetre grid.

Scale: 1 cm represents 10 miles



What does the shaded area represent?

Tick **one** box.

[1 mark]

- ☐ All the points nearer to A than to B
- ☐ All the points at least 30 miles from B
- ☐ All the points halfway between A and B
- ☑ All the points within 20 miles of A

1

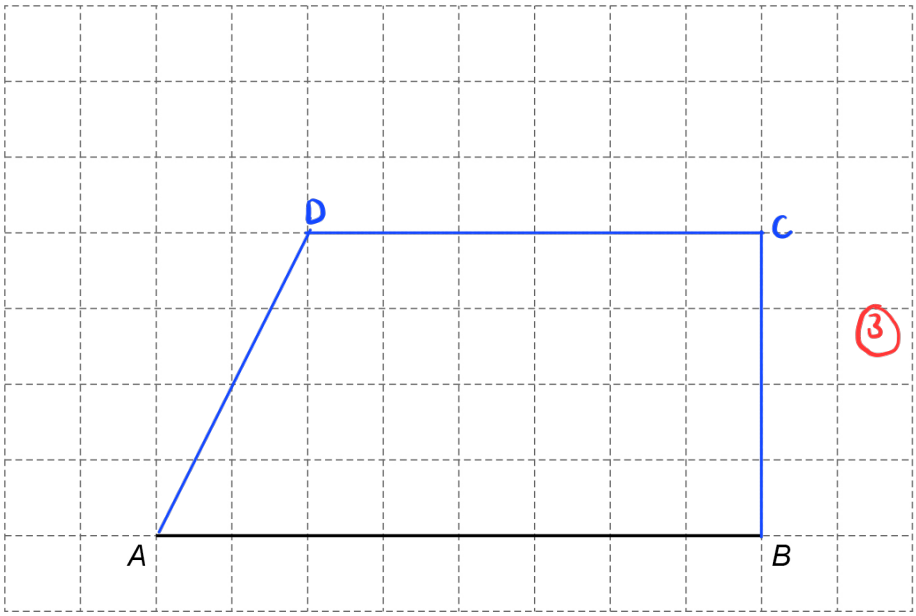
5 Quadrilateral *ABCD* has

- angle *ABC* = 90°
- *BC* = 4 cm
- *CD* is parallel to *BA*
- *CD* = 6 cm

Draw *ABCD* on the centimetre grid.

AB has been drawn for you.

[3 marks]



6 What is the **clockwise** turn from North to East?

Circle your answer.

[1 mark]

45° 90° 270° 315°

1