FOUNDATION & HIGHER

SAME AT BOTH TIERS

Name ..... Class .....

G15: Measuring and bearings

Measure lengths and angles; scale drawings and bearings

20 marks · 25 minutes · Non-calculator

1) *This question is drawn accurately.*



(a) Measure the length of AB.

..... cm

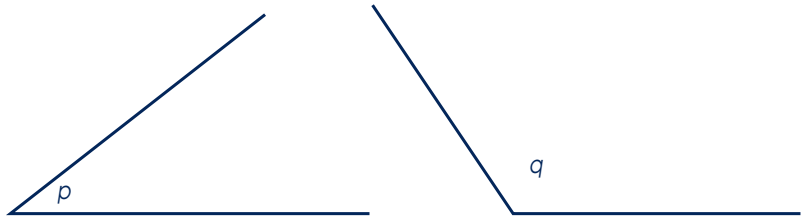
(1)

(b) Mark the midpoint of AB with a cross.

(1)

[Question 1: 2 marks]

2) *The angles are drawn accurately.* Measure each angle.



(a) angle *p*

..... °

(1)

(b) angle *q*

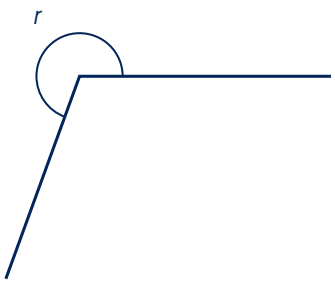
..... °

(1)

[Question 2: 2 marks]

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3) *Drawn accurately.* Measure the reflex angle *r*.



..... °

[Question 3: 1 marks]

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4) *Drawn accurately.* The map shows two towns, A and B. The scale is 1 cm to 5 km.





(a) Measure the bearing of B from A.

..... °

(1)

(b) Find the real distance from A to B.

..... km

(2)

(c) Find the bearing of A from B.

..... °

(1)

[Question 4: 4 marks]

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5) The bearing of P from Q is 135°. Find the bearing of Q from P.

..... °

[Question 5: 1 marks]

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6) The bearing of X from Y is 290°. Find the bearing of Y from X.

..... °

[Question 6: 1 marks]

7) From point C, draw a line 5 cm long on a bearing of 200°.



[Question 7: 2 marks]

8) A scale drawing uses a scale of 1 : 200. A wall is 3.6 cm long on the drawing. How long is the real wall?

..... m

[Question 8: 1 marks]

9) A ship sails 8 km due east, then 6 km due south.

(a) Using a scale of 1 cm to 2 km, draw an accurate diagram of the journey in the space below.

(2)

(b) Use your diagram to find the direct distance from the start to the finish.

..... km

(1)

(c) Find the bearing of the start from the finish.

..... °

(1)

[Question 9: 4 marks]

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10) Write south-west as a three-figure bearing.

..... °

[Question 10: 1 marks]

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11) Write north-east as a three-figure bearing.

..... °

[Question 11: 1 marks]

End of paper – 20 marks in total

Answers and brief mark scheme

Q	Answer	Method / notes
1	(a) 7.4 (b) cross 3.7 cm from *A*	B1 each (±1 mm).
2	(a) 38 (b) 124	B1 each (±2°).
3	250	B1 (±2°).
4	(a) 060 (b) 30 (c) 240	(a) B1 (±2°). (b) 6 cm measured (M1); 30 (A1). (c) B1.
5	315	B1.
6	110	B1.
7	Correct line	Bearing 200° ± 2° (B1); length 5 cm ± 2 mm (B1).
8	7.2	B1.
9	(a) 4 cm east then 3 cm south (b) 10 (c) 307	(a) B2. (b) B1 (accept 9.6 to 10.4). (c) B1 (accept 303 to 311).
10	225	B1.
11	045	B1.