## Section A

Bearings
Grade C

1．（a）The church is due North of the bridge．
Complete the sentence．
The bridge is due $\qquad$ of the church．
（b）The castle is South West of the school． Complete the sentence．

The school is $\qquad$ of the castle．
（1）（Total 2 marks）

2．Matt and Fiaz go to the same college．
The scale drawing shows the positions of their homes and the college．


Matt lives 2.5 kilometres due north of the college．
（a）Measure the distance on the scale drawing from Matt＇s home to the college and hence complete the statement．
$\qquad$
$\qquad$ cm
(b) What is the actual distance from Fiaz's home to the college?
$\qquad$
Answer ............................................ km
(c) Write down the three figure bearing of Fiaz's home from the college.
$\qquad$
3. Tim and Rob go to the High School.

The scale drawing shows the positions of their homes and the High School.


Tim lives 2.25 km due west of the High School.
(a) Use the diagram to work out the scale.

$$
\text { Answer } 1 \mathrm{~km} \text { is represented by ...................... cm }
$$

(b) What is the actual distance from Rob's home to the High School?
$\qquad$
$\qquad$
(c) What is the bearing of Rob's home from the High School?

> Answer
$\qquad$
4. The diagram shows the position of two towns $A$ and $B$.

Scale: 1 cm represents 5 km

(a) Measure the length of $A B$ in centimetres.
$\qquad$
Answer
.cm
(b) Use the scale to work out the actual distance between the towns $A$ and $B$.

Give your answer in kilometres.
$\qquad$
Answer .km
(c) Measure and write down the three-figure bearing of $B$ from $A$.

Answer $\qquad$ ${ }^{\circ}$
(d) $\quad C$ is due east of $A$ and due south of $B$.

Mark the position of $C$ on the diagram.
5. The diagram shows two points $A$ and $B$.
$\square$
(a) Measure the bearing of $B$ from $A$.
$\qquad$
$\qquad$ .
(b) Point $C$ is South-West of $A$ and West of $B$. Mark the position of $C$ on the diagram.
6. $A$ is due North of $B$.

The bearing of $C$ from $A$ is $115^{\circ}$.
The bearing of $C$ from $B$ is $075^{\circ}$.


Mark the position of $C$ on the diagram.
7. The map of an island is shown.

$P$ and $Q$ are the positions of two houses on the island.
(a) What is the bearing of $P$ from $Q$ ?
$\qquad$
$\qquad$ ..
(b) Calculate the actual distance from $P$ to $Q$ in kilometres.
$\qquad$
$\qquad$
Answer ..................................................................
(c) A house is 20 km from $P$ on a bearing of $130^{\circ}$.

Mark the position of the house on the diagram with a $\mathbf{X}$.
$\qquad$
8. The diagram shows a scale drawing of two points, $A$ and $B$, on an orienteering course.

(a) Use the diagram to work out the actual distance from $A$ to $B$.
$\qquad$
$\qquad$
Answer metres
(b) Measure and write down the three-figure bearing of $B$ from $A$.

> Answer ......................................................... degrees
(c) The bearing of point $C$ from $A$ is $300^{\circ}$. What is the three-figure bearing of $A$ from $C$ ?
$\qquad$
$\qquad$
$\qquad$ .degrees
9. The diagram shows a scale drawing of one side, $A B$, of a triangular field, $A B C$.


Scale: 1 cm represents 50 m
(a) Use the diagram to calculate the actual distance from $A$ to $B$.
$\qquad$
$\qquad$

Answer $\qquad$ metres
(b) Measure and write down the three figure bearing of $B$ from $A$.
Answer ......................................................................
(c) The bearing of $C$ from $A$ is $130^{\circ}$. The actual distance from $A$ to $C$ is 350 metres. Mark the point $C$ on the diagram.
$\qquad$
10. The map shows the positions of three places.

(i) What is the bearing of Lancaster from Southport?
$\qquad$
Answer degrees
(ii) What is the bearing of Manchester from Lancaster?
$\qquad$
Answer ..................................................... degrees
(iii) Work out the distance in miles from Manchester to Southport.
$\qquad$
$\qquad$
$\qquad$
11. The diagram shows an island with North lines drawn at points A and B.

Scale: 1 cm to 5 km

(a) Treasure is buried on a bearing of $037^{\circ}$ from A and $290^{\circ}$ from B. Mark, with $\mathrm{a} \times$, the position of the treasure.
(b) Find the real distance between the points A and B.

> Answer .......................................................... km
12. The diagram shows the positions of Joe's house, $J$, and the local shop, $S$.

The diagram is drawn to scale.
1 cm represents 100 m .

(a) Use the diagram to calculate the actual distance from Joe's house to the shop.
$\qquad$
$\qquad$
$\qquad$
(b) Measure and write down the three figure bearing of Joe's house from the shop.
$\qquad$
Answer .. ${ }^{\circ}$
(c) Kate's house, $K$, is 450 metres from the shop on a bearing of $120^{\circ}$. Mark the position of $K$ on the diagram.
13. (a) $A, B$ and $C$ are three towns which form an equilateral triangle as shown.


Use the given bearings to complete the sentences.

$$
060^{\circ} \quad 120^{\circ} \quad 180^{\circ} \quad 240^{\circ} \quad 300^{\circ}
$$

(i) $C$ is on a bearing of $\qquad$ from $A$.
(ii) $B$ is on a bearing of $\qquad$ from $C$.
(b) $D, E$ and $F$ are three towns.
$E$ and $F$ are shown on the diagram.
$D$ is on a bearing of $070^{\circ}$ from $E$.
$D$ is also on a bearing of $320^{\circ}$ from $F$.
Complete the diagram to show accurately the position of $D$.

(2)(Total 4 marks)


Target:

