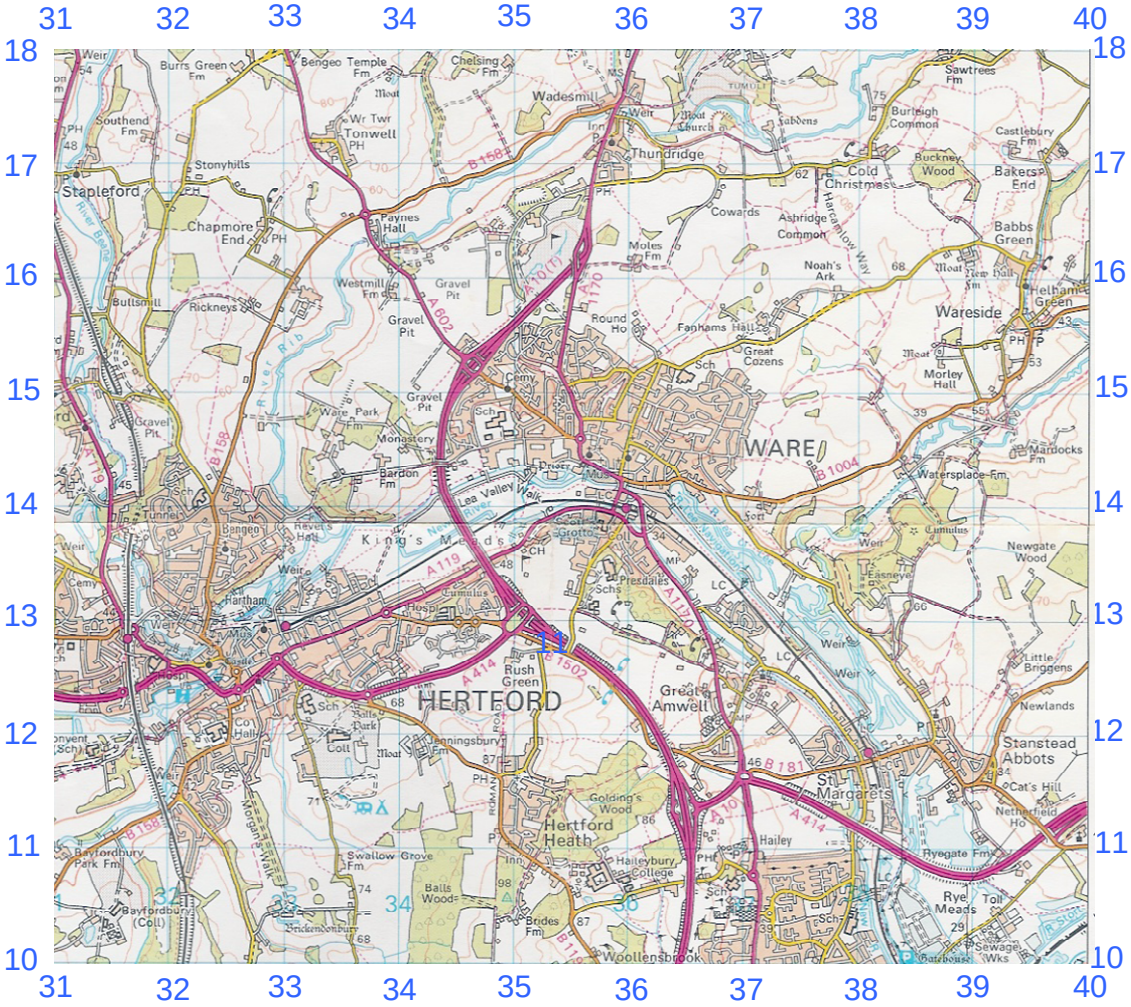
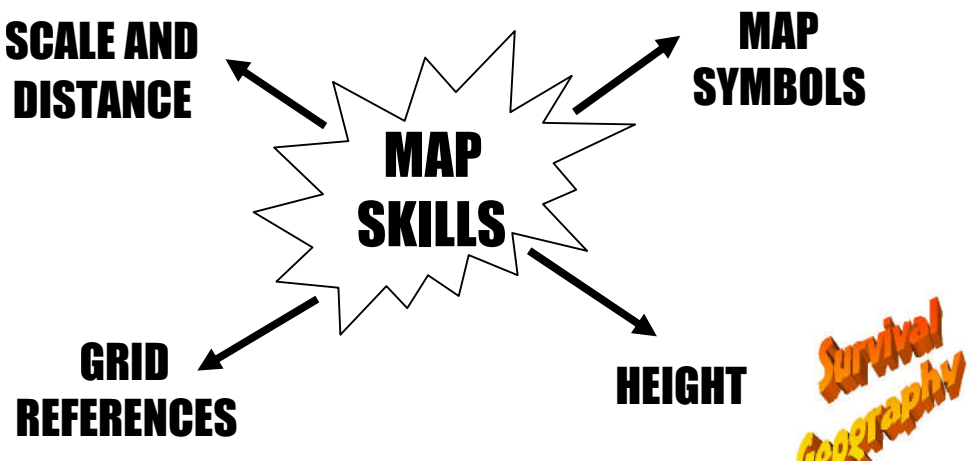
Ordnance Survey maps

Maps produced by the Ordnance Survey, (OS maps), show areas of the UK in great detail. Special skills are needed to be able to read and interpret them accurately.

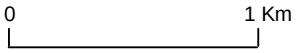




Scale and Distance

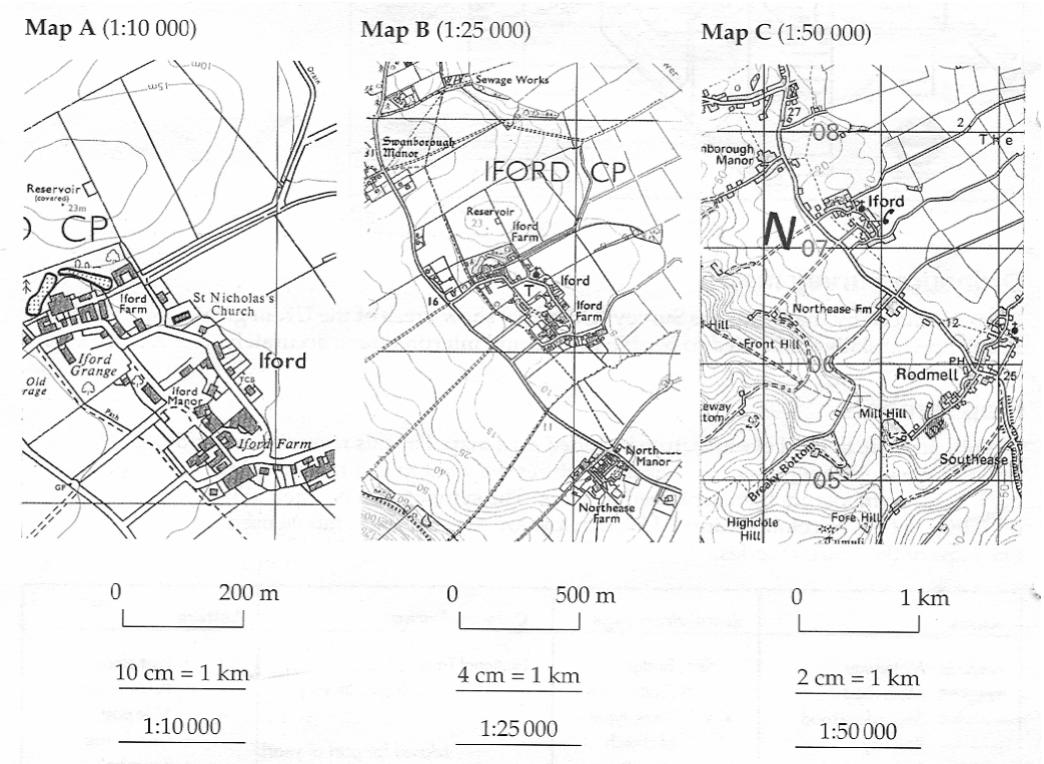
One of the most important uses for a map is to show how far one place is from another. Scale allows us to do this.

The scale also determines the amount of detail shown on a map. A large-scale map shows a small area in great detail. A small-scale map shows a large area in less detail. If you wanted to find information about a village then a large-scale map would be most useful. If you wanted to find information about a country, then it is better to use a small-scale map. Scale can be expressed in three ways:

1. As a linear (line) scale, e.g. 

2. As a statement, e.g. 4 cm = 1 km

3. As a ratio, e.g. 1:25000



1. Which of the above maps shows the greater area?

   _____.

2. Which of the maps shows the greater detail?

   _____.

3. Study all three maps. What is the name of the church shown on both map B and Map C?

   _____.

4. Name two things shown on maps A and B but not on map C.

_____.

5. Give one reason why the features mentioned in question 4 are not shown on map C.

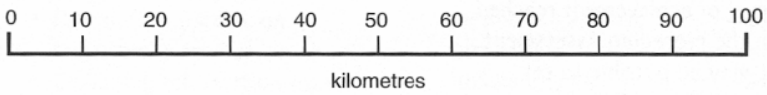
_____

_____

_____

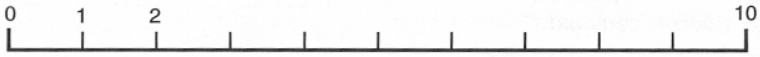
_____

6. Complete these scale lines carefully, by adding the missing numbers to the lines and then writing the scale in words. The first one has been done for you.

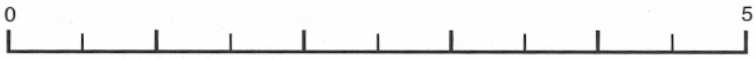
a 

kilometres

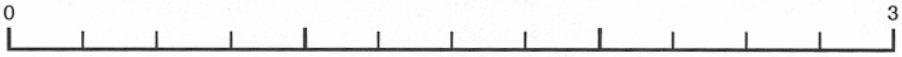
This scale is 1 centimetre: 10 kilometres

b 

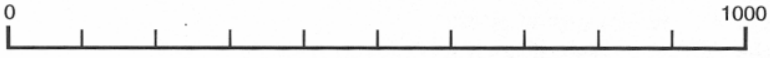
kilometres

c 

kilometres

d 

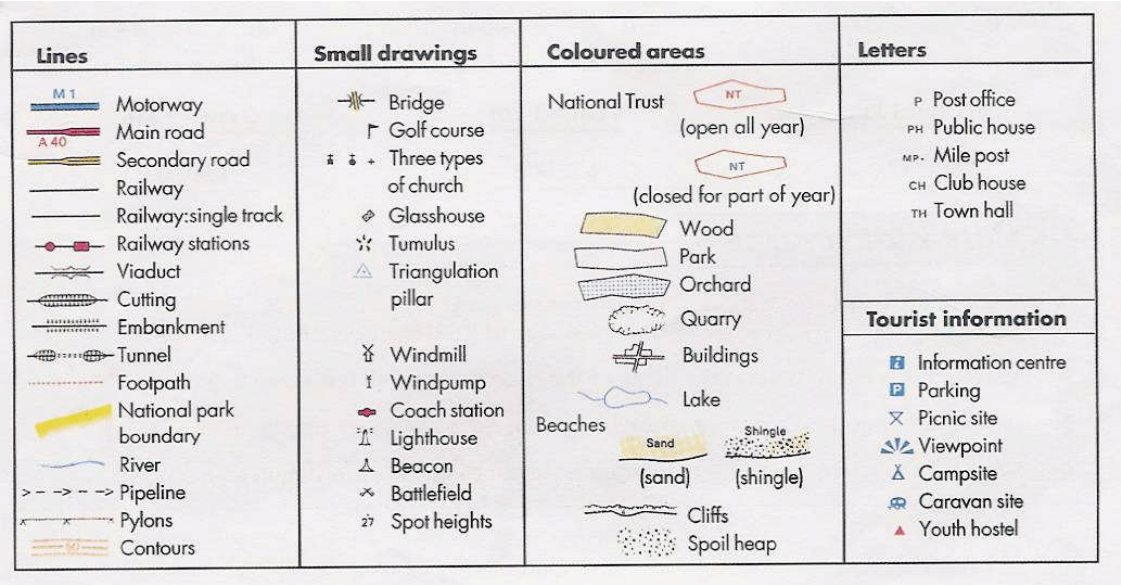
kilometres

e 

metres

Map symbols

It is not possible to label every feature included on a map. For this reason, signs and symbols are used to represent the various features we want to include on a plan or map. These symbols are then explained in a key. The symbols can be lines, small drawings, letters or coloured areas. Listed below are some of the symbols used on OS maps of the 1:50 000 series.



7. What do the following symbols represent?

a.  _____.

b.  _____.

c.  _____.

d.  _____.

e.  _____.

f.  _____.

g.  _____.

h.  _____.

i.  _____.

j.  _____.

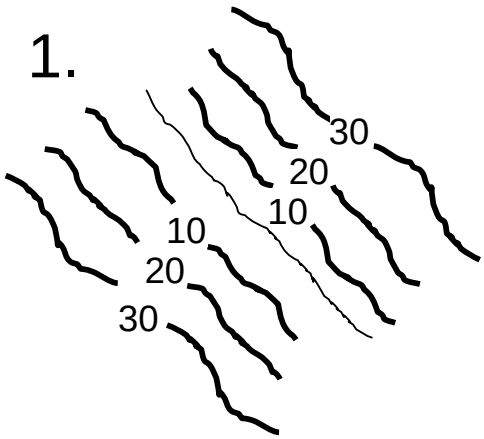
Contour Lines

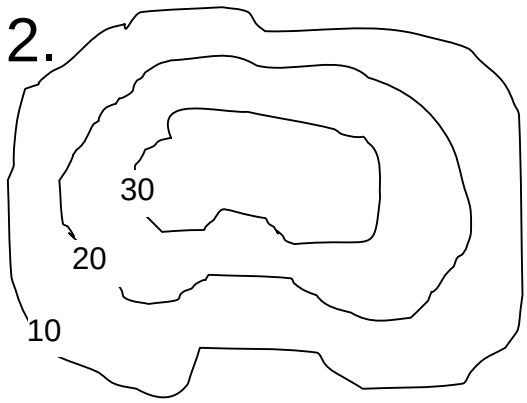
Contours are orange lines drawn on an Ordnance Survey map that are created by joining up places of equal height above sea level. They show us the following information:

- The **ALTITUDE**, (height), of places above sea level,
- The general **SHAPE** of the land i.e. it's relief, including specific landforms such as valleys and plateaux.
- The **STEEPNESS** of the land, i.e. it's **GRADIENT**.

On an Ordnance Survey map contour lines are drawn at intervals of 10 meters, this is known as the **CONTOUR INTERVAL**.

8. Contour lines show height above sea level on an Ordnance Survey Map. Look at the three diagrams below and decide which one shows a **hill** a **ridge** and a **river valley.**





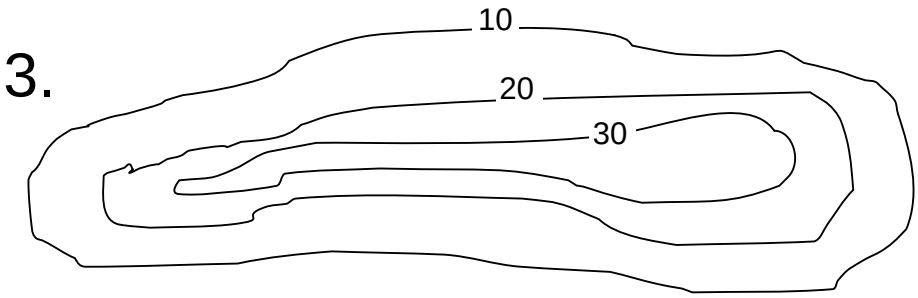


Diagram One shows a_____.

Diagram Two shows a _____.

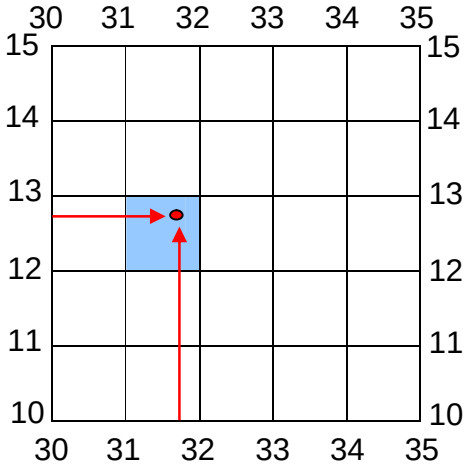
Diagram Three shows a _____.

9. Colour can also be used to show height on a map. Colour code each diagram using the key below:

WHITE	0 - 10	metres above sea level
YELLOW	11 - 20	metres above sea level
ORANGE	21 – 30	metres above sea level
RED	30+	metres above sea level

Grid References

Grid lines 31 and 12 cross at the bottom left hand corner of the square in which Hertford North Station is to be found. The four-figure grid reference would be 3112. The number along the bottom is called the Easting and is always given first. The number up the side is the Northing and this is always given second.



To be more accurate, imagine the square is divided into ten smaller squares in each direction. To find Hertford North Station, start at Easting 31, and go seven-tenths of the way towards Easting 32. Then look up the side of the square, starting at Northing 12. Hertford North Station is eight tenths of the way towards Northing 13. The six-figure grid reference will therefore be 31 and seven tenths across, 12 and eight tenths up. This is written as 317128.

10. Look at the map of Hertford and Ware. Complete the activities below.

a. What is found at 356146? _____.

b. What is found at 351137? _____.

c. What is found at 396162? _____.

d. What is found at 338114? _____.

e. What is the six figure grid reference for Fanshaw Pool?

_____.

f. What is the six figure grid reference for Ware Station?

_____.