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Direction and Bearings

Showing direction on a topographic map, as on any map, is by using north as the main reference point. On a topographic map the grid system determines that north is at the top of the map. To give the direction of one place from another, use the compass points.

The major points, **North, South, East and West**, are known as **cardinal points**. All other points on the compass are known as **ordinal points** (see Fig.3.1)

To determine the direction from one feature to another choose the cardinal point or ordinal point that is closest to the line between the two features.

For example: in Fig.3.2 the direction from A to B is east. The direction from B to A is west.

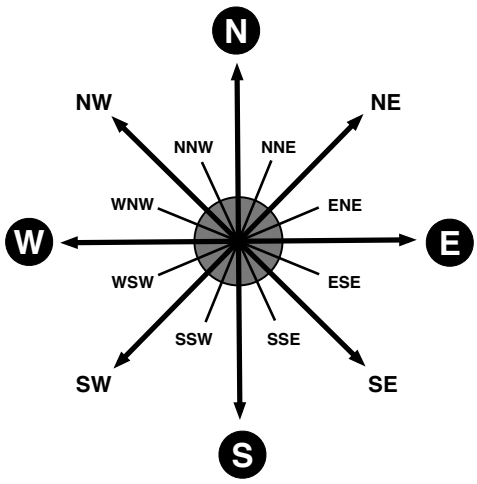


Figure 3.1 - Cardinal and ordinal points

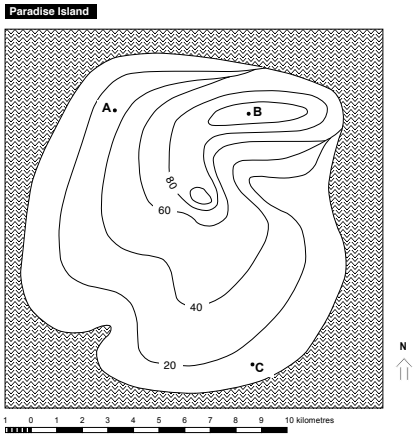
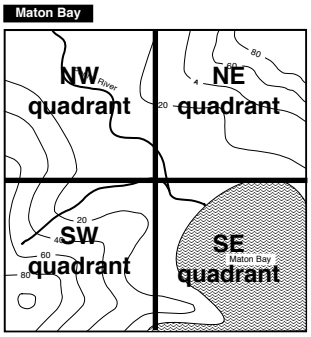


Figure 3.2 - example

Quadrants

Maps can be conveniently divided into quarters using the compass points as shown in Figure 3.3.



In this example Maton Bay is said to be “in the southeast quadrant”.

Figure 3.3 - Map quadrants

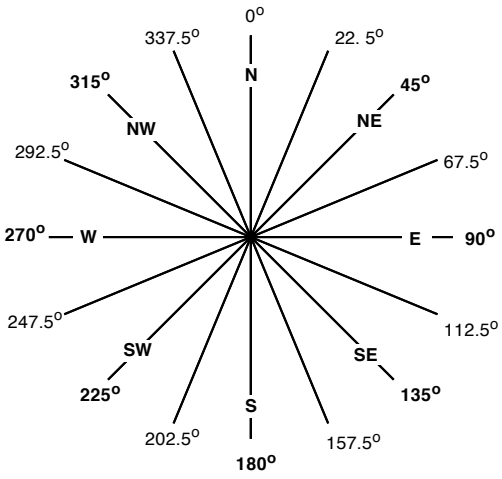


Figure 3.4 - Cardinal and ordinal points with bearings

Bearings

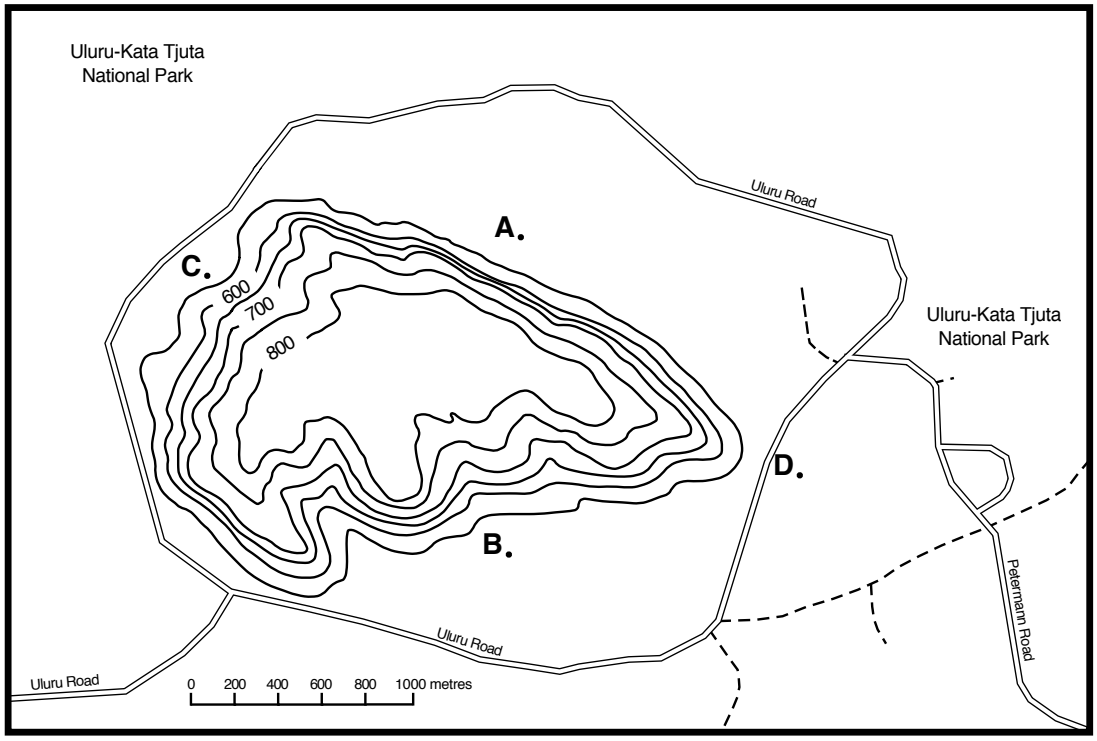
A more accurate method of giving the direction from one place to another is the bearing. A bearing is an angular measurement from one place to another.

Bearings are measured from North which is 0^0.

Figure 3.4 gives the bearings for the cardinal and the ordinal points. Finer measurements can be determined using a protractor (the best to use is a circular or 360^o protractor).

For example: to determine the bearing from A to B in Fig.3.2,draw a line from A to B and a little beyond so that it will cut the edge of the protractor. Place the protractor at A with 0^o pointing north and then reading the angle from the edge of the protractor. The bearing from A to B is 97^0.

Uluru



1. What is the length of Uluru at its widest point? .....

2. What is the direction from A to B? .....

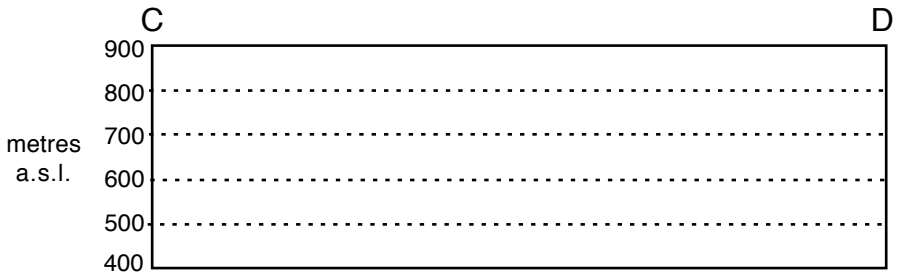
What is the direction from A to B as a compass bearing? .....

3. How long is the road that circles Uluru? .....

How long would it take you to drive this distance at an average speed of 60 km/hr?

.....

4. Draw a cross-section from C to D on the grid below.



VE = ...