

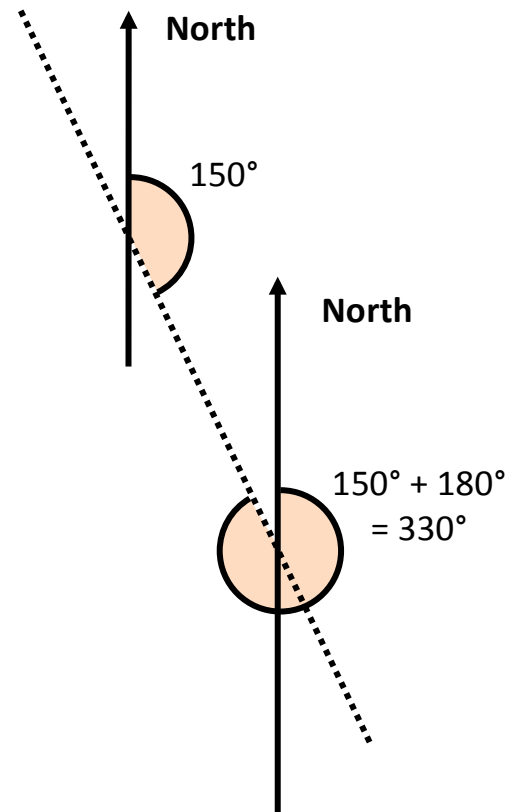
Birmingham airport's runway has the number '15' at one end. This tells the pilot that the required **bearing** for the approach is  $150^\circ$ . The number '33' is at the other end.

Find it [here](#)

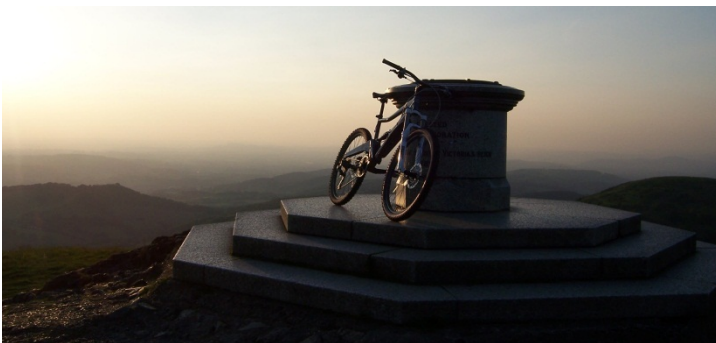
## Task 1

For each of the following airports, one number at the end of a runway is given. Find the number at the other end. Draw a diagram to help explain the reasoning.

- Newcastle: 07
- Helsinki: 04
- Manchester: 23
- Sydney: 16
- Inverness: 30
- Singapore: 20



## Task 2



**Bear this in mind ...**

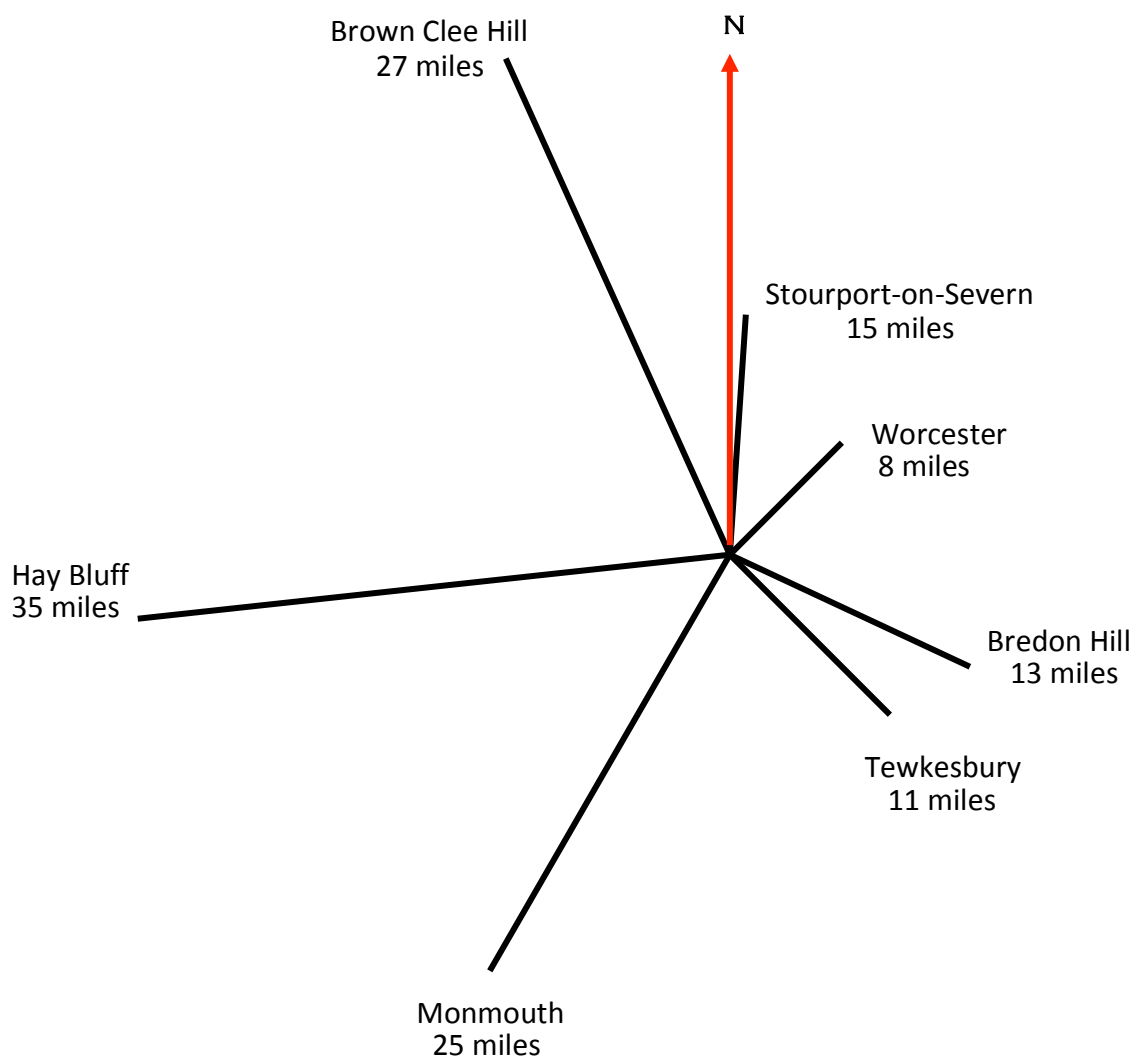
To use a bearing correctly:

- Measure from North
- Measure clockwise
- Always use three figures

Over the page there is some information taken from the toposcope on the Worcestershire Beacon. For each place, measure the bearing and write a sentence such as:

*Brown Clee Hill is 27 miles from the Worcestershire Beacon on a bearing of \_\_\_\_\_°*





### Task 3

You will need to create scale diagrams in order to solve these problems. Choose a sensible scale and use a sharp pencil, ruler and protractor. You also need compasses for question 3.

- An aeroplane leaves an airport and flies 600 km on a bearing of  $032^\circ$ . It then changes to a bearing of  $281^\circ$  and flies 550 km.
  - At the point where the aeroplane was due North of the start, how far was it from the airport?
  - What is the straight line distance between the start point and end point of the flight?
- An aeroplane flies 240 km on a bearing of  $107^\circ$ , then 420 km on a bearing of  $071^\circ$ , and finally 500 km on a bearing of  $295^\circ$ .
  - What is the bearing **of** the end point of the journey **from** the start point?
  - What distance would the pilot have flown if he had been able to travel directly?
- A pilot intends to fly between airports for 600 km on a bearing of  $195^\circ$ . After 500 km, air traffic control informs him that he is actually 180 km from the airport. Assuming that he has flown in a straight line:
  - Mark the aeroplane's two possible positions on a diagram.
  - Find the two possible bearings for the flight.

