1. An airplane leaving Aberystwyth must fly on which bearing to travel to Wrexham?
2. An airplane leaving Blackpool on a bearing of 089° will pass over which city?
3. An airplane leaving Bournemouth must fly on which bearing to travel to Brighton?
4. An airplane leaving Norwich on a bearing 180° flies over which seaside town?
5. An airplane leaving Manchester must fly on which bearing to travel to Cambridge?
6. If you leave Newquay on a bearing of 014° should you hire a car or a boat? Which town do you arrive at first?
7. Exeter is on a bearing of _______ from Northampton?
8. Swansea is on a bearing of _______ from Bournemouth?
9. Oxford is on a bearing of _______ from Portsmouth?
10. Caernarfon is on a bearing of _______ from Barnstaple?
11. An airplane leaves Rhymney airport and flies on a bearing of 053°. Which two cities will the plane fly over?
12. An airplane leaves London and flies on a bearing of 342°. Which two cities will the plane fly over?
13. An airplane leaves Leeds and flies on a bearing of 176°. Which three cities will the plane fly over?
   You’ll need to be very accurate with your measurements to get this right!
14. Ipswich is on a bearing of 000° from Dover. What is the bearing of Dover from Ipswich?
15. Leicester is on a bearing of 090° from Aberystwyth. What is the bearing of Aberystwyth from Leicester?
16. Newquay is on a bearing of 280° from Plymouth. What is the bearing of Plymouth from Newquay?
Problems involving scale:

17 ‘As the crow flies’ how far is Swansea from Sheffield?
18 A light airplane has enough fuel to travel 200 km when it leaves Cardiff airport. Will it get to London?
19 You are on Rhymney mountain with a microlight that has a range of 100 km. List all the towns marked on the map above that you could visit.
20 If you leave London on a bearing of 343° and travel for 235 km which city will you be in?
21 A ship is 85 km from Barnstaple on a bearing of 068° when it broadcasts a distress signal. Should you call the coast guard at Swansea or Cardiff?
22 You have been travelling on a bearing of 063° for 120 km when you finally reach Margate. Which town did you start off from?
23 You leave London on a bearing of 018° and travel for 82 km. You then travel on a bearing of 249° for 112 km. Which places have you visited?
24 Construct a table of bearings and distances that if followed would guide a ship from Blackpool to Swansea.

Now visit eChalk and use the “Bearings: maps and scale drawings” application to check your answers!
Bearings: maps and scale drawings
(Answers)

1. An airplane leaving Aberystwyth must fly on which bearing to travel to Wrexham? (053°)
2. An airplane leaving Blackpool on a bearing of 089° will pass over which city? (York)
3. An airplane leaving Bournemouth must fly on which bearing to travel to Brighton? (090°)
4. An airplane leaving Norwich on a bearing 180° flies over which seaside town? (Margate)
5. An airplane leaving Manchester must fly on which bearing to travel to Cambridge? (138°)
6. If you leave Newquay on a bearing of 014° should you hire a car or a boat? Which town do you arrive at first? (boat, Pembroke)
7. Exeter is on a bearing of _______ from Northampton? (234°)
8. Swansea is on a bearing of _______ from Bournemouth? (301°)
9. Oxford is on a bearing of _______ from Portsmouth? (357°)
10. Caernarfon is on a bearing of _______ from Barnstaple? (004°)
11. An airplane leaves Rhymney airport and flies on a bearing of 053°. Which two cities will the plane fly over? (Birmingham and Nottingham)
12. An airplane leaves London and flies on a bearing of 342°. Which two cities will the plane fly over? (Nottingham and Sheffield)
13. An airplane leaves Leeds and flies on a bearing of 176°. Which three cities will the plane fly over? You’ll need to be very accurate with your measurements to get this right! (Sheffield, Leicester and Reading)
14. Ipswich is on a bearing of 000° from Dover. What is the bearing of Dover from Ipswich? (270°)
15. Leicester is on a bearing of 090° from Aberystwyth. What is the bearing of Aberystwyth from Leicester? (270°)
16. Newquay is on a bearing of 280° from Plymouth. What is the bearing of Plymouth from Newquay? (100°)

Problems involving scale:

17. ‘As the crow flies’ how far is Swansea from Sheffield? (272 km)
18. A light airplane has enough fuel to travel 200 km when it leaves Cardiff airport. Will it get to London? (No)
19. You are on Rhymney mountain with a microlight that has a range of 100 km. List all the towns marked on the map above that you could visit. (Aberystwyth, Swansea, Cardiff, Barnstaple, Bristol, Gloucester)
20. If you leave London on a bearing of 343° and travel for 235 km which city will you be in? (Sheffield)
21. A ship is 85 km from Barnstaple on a bearing of 068° when it broadcasts a distress signal. Should you call the coast guard at Swansea or Cardiff? (Cardiff)
22. You have been travelling on a bearing of 063° for 120 km when you finally reach Margate. Which town did you start off from? (Brighton)
23. You leave London on a bearing of 018° and travel for 82 km. You then travel on a bearing of 249° for 112 km. Which places have you visited? (Cambridge, Oxford)