Temperature map

The first map shows temperatures – each hollow dot marks a weather station and the number next to it is the temperature it recorded. Your task is to draw the isotherms (lines of constant temperature) for 10.5°C, 8.5°C, 6.5°C, 4.5°C and 2.5°C.

Remember:

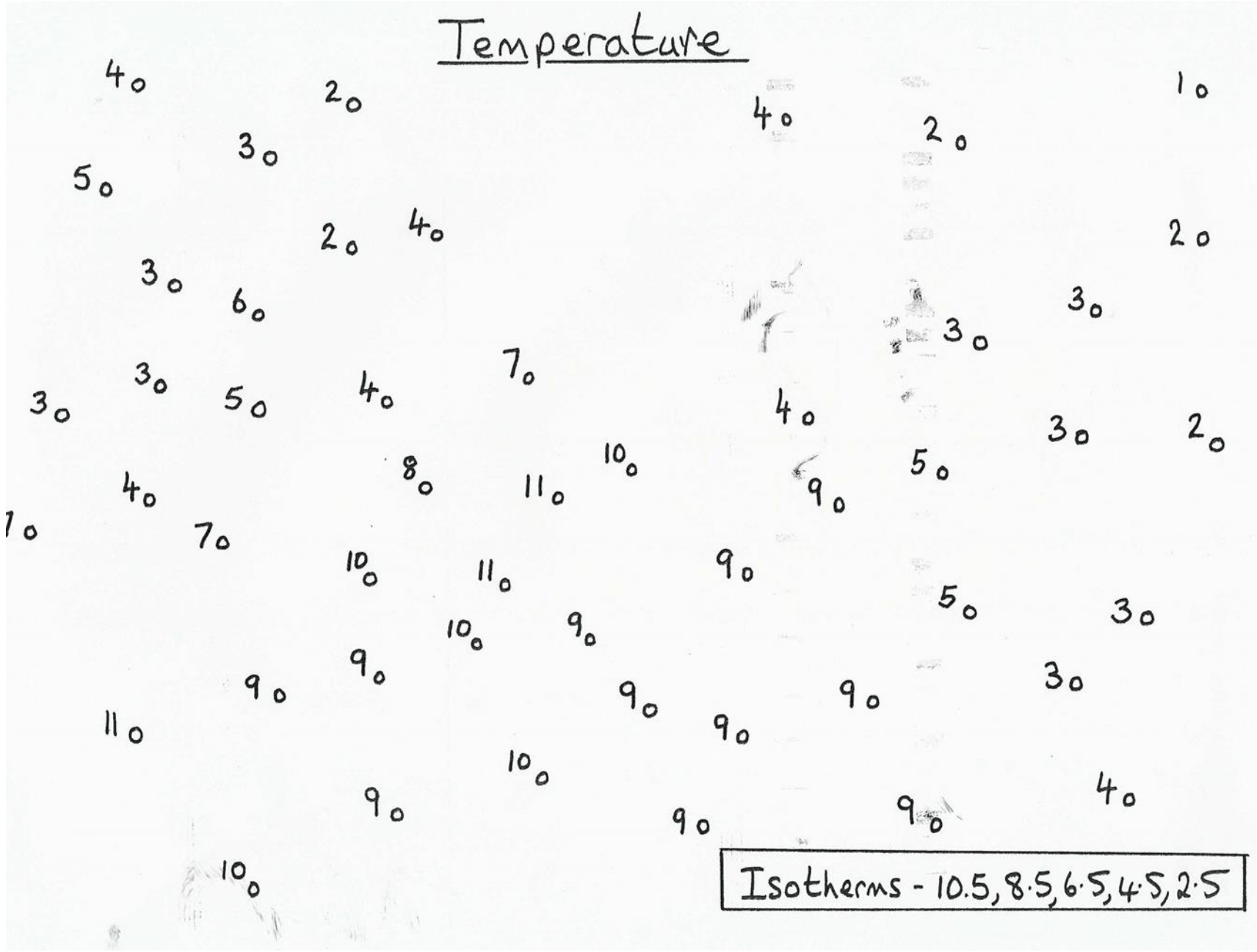
- Contours can't stop in the middle of a map, but they do stop at the edges
- Contours can't touch or cross – that would imply it was two different temperatures at the same place
- Sometimes, there isn't enough information to know exactly what a contour does – you'll find this is the case with the lowest two contours; there are several possible correct answers
- The 6.5°C contour, for example, will have all the places which are warmer than 6.5°C on one side of it, and all the places which are colder than 6.5°C on the other side
- It's not a dot-to-dot

How to start:

If you have coloured pencils (or use different strengths of shading), start by using one colour to shade all the dots which are over (and therefore warmer than) 10.5°C. You then need to draw a line around these to separate these warmer temperatures. You then choose another colour for the dots which are between 10.5 and 8.5°C, and third colour for the dots between 8.5°C and 6.5°C until you have coloured in all the dots which are between the temperatures listed in bold above. It should become obvious where to draw the lines which separate the colours but the lines must not touch

Alternatively, start by considering the 10.5 contour. There are two dots marked 11 near the centre of the map. Near it, there are some dots marked 10. Try and draw a line which goes half way between the 10 and 11. If the next nearest dot is an 8, then the 10.5 line will be closer to the 11 than the 8 etc. You should end up with a closed circle surrounding the two 11 dots. It's a bit like the top of a hill on a height contour map.

Try and describe the pattern of temperatures in the map – where is it warmest/ coldest? Where is the temperature changing most rapidly? Remember that a front is where cold and warm air meet.


Temperature
4o
2o
3o
5o
2o
4o
3o
6o
3o
5o
4o
7o
3o
8o
11o
10o
1o
7o
10o
11o
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9o
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4o
Isotherms - 10.5, 8·5, 6·5, 4·5, 2·5