

Read and study the information about storm Desmond (December 2005) at www.metoffice.gov.uk/climate/uk/interesting/december2015. Especially consider the impacts of the storm on people and natural processes.

The map below shows the measurements of rainfall on one day during Storm Desmond in December 2015. Isohyets have been added but are incomplete (isohyets are lines joining up points with equal rainfall). The rainfall total points are not exact matches for the isohyet number interval (50 mm, 100 mm and 150 mm) so when drawing these lines it is necessary to estimate where inbetween the points the isohyet value is.

- (i) Draw the 150 mm isohyet.
- (ii) Complete the 50 mm and 100 mm isohyets.
- (iii) Produce a choropleth map to show the pattern of rainfall on this day by colouring the area with over 150 mm in purple, areas between 100 mm and 150 mm in dark blue, areas between 50 mm and 100 mm in light blue, and areas below 50 mm in light brown.
- (iv) Complete the key for the map.
- (v) What do you notice about the pattern shown by your finished map?
- (vi) Investigate the meaning of "orographic rainfall".

