

River Homework 3 Answers

1) A waterfall is found at X on figure 1, give the 6 figure grid reference for the waterfall ? (1)

.....

2) There is another waterdall at Y, state the distance between the two waterfalls ? (1)

.....km

3) Which waterfall, X or Y, is located on a steeper section of the rivers course? (1)

.....

1.1 633525 (accept 634524) [1 mark]

1.2 0.4 km [1 mark]

1.3 Waterfall Y [1 mark]

Remember that the steeper the gradient, the closer together the contour lines will be.

4) Suggest why waterfalls have formed along this stretch of river (2)

1.4 Waterfalls form where a river flows over an area of hard rock followed by an area of softer rock [1 mark], so the Afon Merch must flow over rocks with alternating hardness [1 mark].

5) Explain how a gorge may form in the upper course of this river (3)

1.5 A gorge forms as a waterfall retreats up a river channel [1 mark]. The hard rock cap is undercut by erosion (abrasion) so it becomes unsupported and collapses [1 mark]. Over time, more undercutting causes more collapses, so the waterfall retreats, forming a gorge [1 mark].

6) Explain the formation of an interlocking spur? (4)

2.1 This question is level marked. How to grade your answer:
Level 0: There is no relevant information. [0 marks]
Level 1: There is a basic explanation of the formation of interlocking spurs. [1-2 marks]
Level 2: There is a detailed explanation of the formation of interlocking spurs, which uses geographical terms accurately. [3-4 marks]

Here are some points your answer may include:

- In the upper course of a river most of the erosion is vertically downwards, creating steep-sided, V-shaped valleys.
- In the upper course, rivers aren't powerful enough to erode laterally (sideways), so they wind around the high hillsides that stick out into their paths on either side.
- The hillsides interlock with each other as the river winds around them, forming interlocking spurs.