The average velocity (speed of water) and discharge (amount of water) of a river **increases/decreases** along its course. Although the upper course has a **steep/gentle** gradient and is **v/u** shaped, the velocity depends on how much water comes into contact with the channel banks and bed. In the upper course the channel is **shallow/deep** due to **vertical/lateral** erosion and **narrow/wide,** so there is **much/less** friction. This is because in the upper course the rock is **harder/softer** and so the valley sides **are/are not** widened out much by weathering and erosion. Therefore, velocity is **low/high**.

In the middle course the river is flowing through lower country. The gradient is **less/more** steep, so the river begins to meander and erode **vertically/laterally** into the valley sides. The rate of erosion **increases/decreases** as the rocks that make up the valley sides are **harder/softer**. As the river uses more energy in lateral erosion it is not able to remove all the eroded material so this builds up the valley floor to give it a more **steep/gentle** profile.

The lower course of river flows through low lying land and has a **narrow/wide** and **deep/shallow** channel.Therefore, there is **much/less** friction resulting in a **low/high** velocity. The speed is boosted by the additional discharge from all the tributaries. Deposition from floods builds up the flood plain and meanders migrate. This builds up and **narrows/widens** the valley**.**

**Explain how the profile of a river changes downstream.**

Read the text below and delete (cross out with black marker) the incorrect word. I have done one for you.

DEMONSTRATE

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