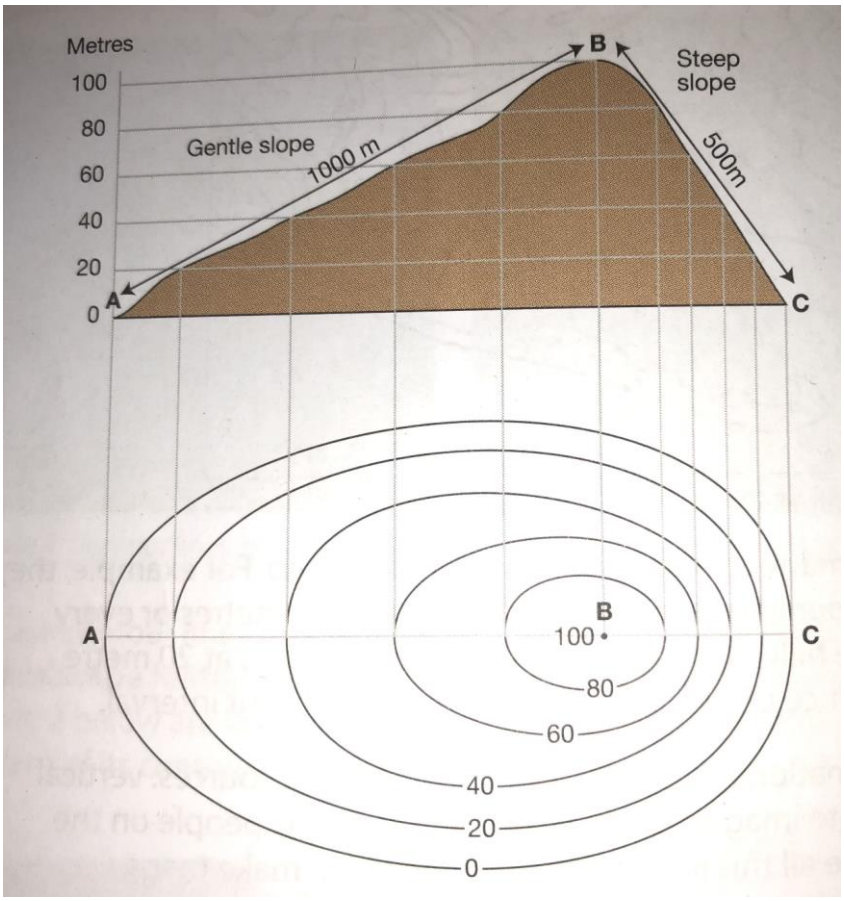
Gradient:

Gradient = $\frac{vertical\ height\ difference}{horizontal\ distance}$ = $\frac{100\ m}{1000\ m}$ = $\frac{1}{10}$

We describe gradient as a ratio. $\frac{1}{10}$ as a ratio is written as 1:10. This means that we need to travel ten meters along the ground to go up one meter in height.