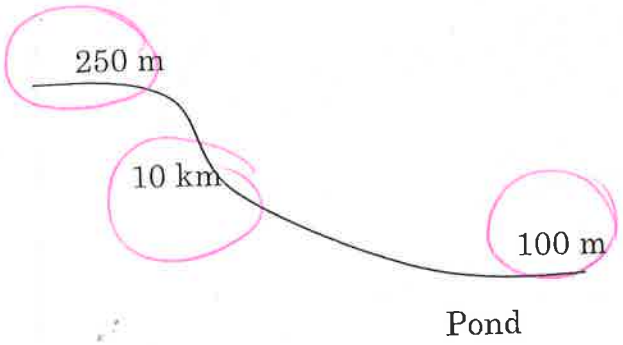
# Ex Gradient

Gradient = $\frac{\text{change in Elevation}}{\text{distance}}$

A stream begins at an elevation of 250 m and flows into a pond that is at an elevation of 100 m. The length of the stream is 10 km. What is the gradient?




**Formula:** $\frac{\text{change in Elevation}}{\text{distance}}$

**Substitute Numbers** $\frac{250\text{m} - 100\text{m}}{10\text{km}}$

**Solution (with units)** $\frac{150\text{m}}{10\text{km}}$ 15m/km

A map shows two locations A and B. They are 15 kilometers apart. Location A has an elevation of 525 meters and location B has an elevation of 150 meters. What is the gradient between the two locations?

Formula:

Substitute Numbers

Solution (with units)

The difference in elevation between two locations is 800 meters. The distance between them is only .05 kilometers. What is the gradient between the two points?

Formula:

Substitute Numbers

Solution (with units)