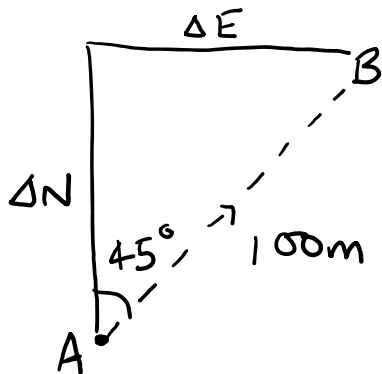


Question 1

A surveyor measures a traverse leg from station A on a bearing of 045° for a distance of 100 m.

Calculate the change in Easting (ΔE) and change in Northing (ΔN).



$$\sin 45 = \frac{\Delta E}{100}$$

$$\Delta E = 100 \sin 45 = 70.7 \text{ m}$$

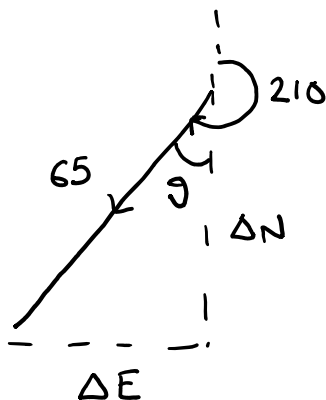
$$\cos 45 = \frac{\Delta N}{100}$$

$$\Delta N = 100 \cos 45 = 70.7 \text{ m}$$

Question 2

A boundary line runs from point B on a bearing of 210° for a distance of 65 m.

Calculate the change in Easting and change in Northing.



$$\theta = 210 - 180 = 30^\circ$$

Question 3

A surveyor sets out from **control point E** with coordinates:

$$E = (E\ 2500.000, N\ 1750.000)$$

The surveyor travels on a bearing of **300°** for a distance of **120 m**.

Calculate the **coordinates of point F**.