

$$\text{iii} = 5 \cos x = 3$$

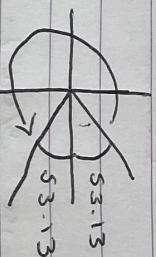
$$\cos x = \frac{3}{5}$$

$$x = \cos^{-1}\left(\frac{3}{5}\right)$$

$$x = 53.13^\circ$$

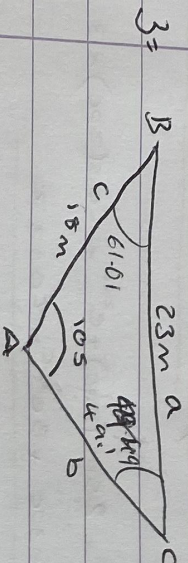
$$x = 180 - 53.13$$

$$x = 126.87$$



$$x = 360 - 53.13$$

$$x = 283.3^\circ$$



$$\frac{A}{\sin A} = \frac{B}{\sin B} = \frac{C}{\sin C}$$

i = find C

$$\frac{23}{\sin 105} = \frac{18}{\sin A} \Rightarrow \sin A = \frac{18 \sin 105}{23} \Rightarrow \sin A = \frac{18}{23}$$

$$\frac{18}{23} = \sin A$$

$$\sin C = \frac{C}{23}$$

$$\sin^{-1}\left(\frac{18}{23}\right) = C$$

$$C = 49.11^\circ$$

ii = find B

$$180 = 105 + 13.99 + B$$

$$B = 61.01^\circ$$

$$180 = 105 + 13.99 + B$$

$$B = 25.9^\circ$$

$$\text{iii} = (AC)^2 = 23^2 + 18^2 - 2(23)(18) \cos 105$$

$$(AC)^2 = 529 + 324 - 828(-0.258)$$

$$(AC)^2 = 853 - 828(213.624)$$

$$(AC)^2 = 639.376$$

$$AC = 25.28$$

$$y = \frac{b(x^2 + R)}{\theta}$$

$$y = 25.28$$

$$x = \sqrt{\frac{y\theta}{25.28} - R}$$