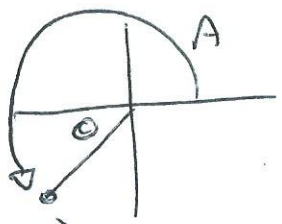
Q.13

FIND A CORRECT TO NEAREST °

IF $\sin A = -\frac{4}{5}$ $\cos A = -\frac{3}{5}$

ANS



$\therefore \tan\theta = \frac{\sin\theta}{\cos\theta}$

$= \left(-\frac{4}{5}\right)\left(-\frac{5}{3}\right)$

$\tan\theta = \frac{4}{3}$

$\theta = \tan^{-1}(4/3)$

$= 53°$

$\therefore A = 180° + 53°$

$= 233°$

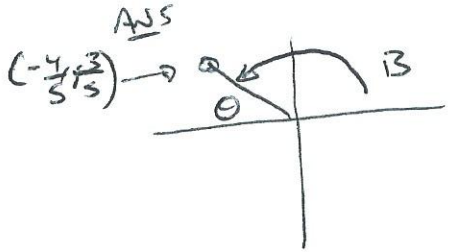
Q.14.

IF $\sin B = \frac{3}{5}$ AND $\cos B = -\frac{4}{5}$

FIND THE VALUE OF $\tan B$

WITHOUT USING A CALCULATOR.

ANS



$\tan\theta = \frac{3}{5} / -\frac{4}{5}$

$= \frac{3}{5} \cdot -\frac{5}{4} = \frac{-15}{20}$

$\tan\theta = -\frac{3}{4}$

$\therefore \tan B = \tan\theta$

$= -3/4.$

$\{B = 143°$ ie $\sin^{-1}(\frac{3}{5})$ or $\cos^{-1}(-\frac{4}{5})\}$

CAST IV

Q.15 IF $\tan B = \frac{1}{\sqrt{3}}$

$\sin B = -\frac{1}{2}$

FIND $\cos B$

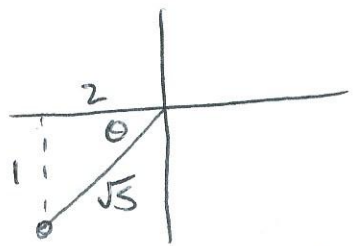
$\therefore \tan B = \frac{\sin B}{\cos B}$

$\Rightarrow \cos B = \frac{\sin B}{\tan B}$

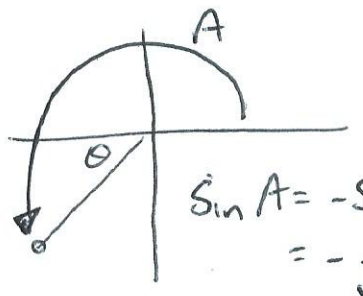
$= -\frac{1}{2} / \frac{1}{\sqrt{3}}$

$\boxed{\cos B = -\frac{\sqrt{3}}{2}.}$

Q.16 IF $\tan A = \frac{1}{2}$ AND $180° < A < 270°$. FIND $\sin A$ in Surd Form.



$\Rightarrow$



$\sin\theta = \frac{1}{\sqrt{5}}$

$\cos\theta = \frac{2}{\sqrt{5}}$

$\sin A = -\sin\theta$

$= -\frac{1}{\sqrt{5}}$

Q.17 FIND (i) $\sin 420° = \sin 420 - 360$

$\sin 420 = \sin 60 = \frac{\sqrt{3}}{2}$

(ii) $\cos 495° = \cos 495 - 360° = \cos 135°$

$= -\cos 45° = -\frac{1}{\sqrt{2}}$

(iii) $\tan(-120°) = \tan 240°$

$= \tan 60° = \sqrt{3}$