



MATHS

BOOKS - JEE MAINS PREVIOUS YEAR

TRIGONOMETRIC FUNCTIONS



1. AB is a vertical pole with B at the ground level and A at the top. A man finds that the angle of elevation of the point A from a



2. Let A and B denote the statements A: $\cos a + \cos b + \cos g = 0$ B : $\sin a + \sin b + \sin g = 0$ If $\cos(bg) + \cos(ga) + \cos(ab) = 3/2$, then (1) A is true and B is false (2) A is false and B is true (3) both A and B are true (4) both A and B are false

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3.
$$\int_0^{\pi} [\cot x] dx$$
 , where [.] denotes the greatest integer function, is equal to (1) $\pi/2$ (2) 1 (3) 1 (4) $\pi/2$

4. For a regular polygon, let r and R be the radii of the inscribed and the circumscribed circles. A false statement among the following is There is a regular polygon with $rac{r}{R}=rac{ extsf{ iny L}}{\sqrt{2}}$ (17) There is a regular polygon with $\frac{r}{R} = \frac{2}{2}$ (30) There is a regular polygon with $rac{r}{R}=rac{\sqrt{3}}{2}$ (47) There is a regular polygon with $\frac{r}{R}=\frac{1}{2}$ (60)

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5. In a ΔPQR , if $3s \in P+4\cos Q=6$ and $4s \in Q+3\cos P=1$, then the angle R is equal to (1) $rac{5\pi}{6}$ (2) $rac{\pi}{6}$ (3) $rac{\pi}{4}$ (4) $rac{3\pi}{4}$

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