

MATHS QUESTIONS

1. $\cot\theta + \tan\theta$

equals:

- (a) $\operatorname{cosec}\theta \sec\theta$ (b) $\sin\theta \sec\theta$ (c) $\cos\theta \tan\theta$ (d) $\sin^2\theta$
(a) 4 (b) 3 (c) 2 (d) 5

2. The modal class of the following distribution is:

Class interval	10–15	15–20	20–25	25–30	30–35
Frequency	4	7	12	8	2

- (a) 30–35 (b) 20–25 (c) 25–30 (d) 15–20

3. The areas of two similar triangles are 49cm^2 and 64cm^2 respectively. The ratio of their corresponding sides is

- (a) 49:64 (b) 7:8 (c) 64:49 (d) None of these

4. On solving $x - y = 3$, $x + y = 5$, we have value of y as:

- (a) 1 (b) 2 (c) 3 (d) 4

5. If the roots of a quadratic equation are equal, then the discriminant is:

- (a) 1 (b) 0 (c) greater than 0 (d) less than 0