

JENPAS UG Maths

1. A bag has 3 red and 2 blue balls. One ball drawn at random. Probability it is red=?

Solution: $\frac{3}{5}$

2. Distance between points A (1,0,0) and B (4,3,0) in 3D=?

Solution: 5

3. A triangle has legs 6 and 8. Find the radius r of its inscribed circle (inradius).

Solution: $r = 2$

4. A dice is thrown once. Probability of getting an even number= ?

Solution: $\frac{3}{6} = \frac{1}{2}$

5. Find slope of line joining (1,2) and (5,6)

Solution: 1

As, $\frac{6-2}{5-1} = \frac{4}{4} = 1$

6. First term 4, common difference 5. The 6th term=?

Solution: $4 + (6-1) \cdot 5 = 29$

7. Magnitude of vector (3,4)= ?

Solution: 5

8. Equation of line parallel to $y = 2x+3$ through (1,1)

Solution: 1

As, $y-1 = 2(x-1) \implies y = 2x-1$

9. Two coins tossed. Probability of getting exactly 1 head?

Solution: $\frac{2}{4} = \frac{1}{2}$

10. Mean of 2,4,6,8,10

Solution: 6

Sum= 30, divide by 5=6

11. Slope of line perpendicular to slope 2

Solution: $\frac{1}{2}$

12. A card drawn from a standard deck. Probability is a king?

Solution: $\frac{4}{52} = \frac{1}{13}$