



Step Academy official

Model Town Grw PH: 03016652757

CLASS: 9th [New Books]

Mathematics

TOTAL MARKS: 40

STUDENT NAME:

PAPER CODE: 94524

TIME: 90

Paper Date: 2026-02-05

(UNIT 7: Coordinate Geometry)(UNIT 9: Similar Figures)(UNIT 10: Graphs of Functions)(UNIT 11: Loci and Construction)(UNIT 12: Information Handling)(UNIT 13: Probability)

Q1. Choose the correct answer.

10X1=10

1. The gradients of two parallel lines are:

- (A) Equal (B) Zero (C) Negative reciprocals of each other (D) Always undefined

2. If the product of the gradients of two lines is -1, then the lines are:

- (A) Parallel (B) Perpendicular (C) Collinear (D) Coincident

3. The equation of a line in symmetric form is:

- (A) $\frac{x}{a} + \frac{y}{b} = 1$ (B) $\frac{x-x_1}{1} + \frac{y-y_1}{m} = \frac{z-z_1}{1}$ (C) $ax + by + c = 0$ (D) $y - y_1 = m(x - x_1)$

4. $y=5^x$ is function:

- (A) Linear (B) Quadratic (C) Cubic (D) Exponential

5. A triangle can be constructed if the sum of the measure of the any two sides is the measure of the third side

- (A) Less than (B) Greater than (C) Equal to (D) Greater than and equal to

6. Frequency polygon is also drawn / constructed by using:

- (A) Histogram (B) Bar graph (C) Class boundaries (D) Class limit

7. Find the median of the given data: 110,125,122,130,124 and 120:

- (A) 124 (B) 120 (C) 125 (D) 127

8. Each element of the sample space is called

- (A) Event (B) Experiment (C) Sample point (D) Outcomes

9. An event which will probably occur. It has greater chance to occur is called:

- (A) Equally likely event (B) Likely event (C) Unlikely event (D) Certain event

10. While rolling a pair of dice, what will be the probability of double 2?

- (A) $\frac{1}{6}$ (B) $\frac{1}{3}$ (C) $\frac{5}{6}$ (D) $\frac{1}{36}$

Q2. Write short answers of the following questions.

10X2=20

1 . Find the slope and inclination of the line joining the points: (4, 6) ; (4, 8)

2 . Find the distance between two points A(2,3) and B(7,8) on a coordinate plane.

3 . Find whether the solids are similar. All lengths are in cm. (image)

4 . Plot the graph of: $y = 2x^{\frac{1}{5}}$

5 . Find the arithmetic mean in the following: 6.5,11,12.3,9,8.1,16,18,20.5,25.

6 .

Taabish tossed a fair coin and rolled a fair dice once. Find the probability of the following event: not head on coin and the number 5 and 2 on dice.

7 .

If Zeeshan rolled two fair dice, find the probability of getting: At least the number 3 on the first dice and number 4 on the second dice

8 . Three coins are tossed together, what is the probability of getting: not at least two heads.

9 . Define the following: Relative frequency.

10 . Define the following: Expected frequency.

Q3. Write detailed answers of the following questions.

2X5=10

1 . Show that: the points A(5, 2), B(-2, 3), C(-3, -4) and D(4, -5) are vertices of a parallelogram.

2 .

In the following check whether the two lines are: (i) parallel (ii) perpendicular (iii) neither parallel nor perpendicular $2x + y - 3 = 0$; $4x + 2y + 5 = 0$