पुण्ना International School
Shree Swaminarayan Gurukul, Zundal

Sample Paper			
Student Name		**Grade** 9th	
Date		**Subject**	**MATHEMATICS**
	Time	**Total Marks**	**80**

General Instruction:

1. Questions from 1 to 20 are carries 1 Marks each.
2. Questions from 21 to28 are carries 2 Marks each.
3. Question from 29 to 38 carries 3 Marks each.
4 Question from 39 to 46 carries 4 Marks each.

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Section – A   [1X 20= 20]

</div>

Solve 1 to 20 questions each carry 1 mark

1 The absolute value of | - 23 | is

  (A) - 23   (B) 23   (C) 0   (D) None

2 The smallest prime number is

  (A) 0   (B) 2   (C) 1   (D) None

3 Any point on the X axis is of the form

  (A) (x, y)   (B) (x, 0)   (C) (x, -y)   (D) (0, y)

4. Which of the following equation has graph parallel to Y-axis?

  (A) y = - 2   (B) x = 1   (C) x – y = 2   (D) x + y = 2

5. A surface is that which has

  (A) Length and breadth   (B) Length only

  (C) Breadth only   (D) Length and height

6. The number of lines that can pass through a given point is

  (A)Two   (B) None   (C) only one   (D) infinitely many

7. The equation 2x + 5y = 7 has a unique solution, if x and y are

  (A) Natural number   (B) Positive Real Number

  (C) Real Number   (D) Rational Number

8 If (2, 0) is a solution of the linear equation 2x + 3y = k, then the value of k is

(A)   4   (B) 5   (C)   6   (D) 2

9. The smallest whole number is

(A)   0   (B) 2   (C)   1   (D) None

10. The number of dimensions, a solid has

(A) 1   (B)   2   (C) 3   (D) 0

11. Which of the given number is an irrational number?

12. A rational number between -3 and 3 is

13. The value of √20 X √5 is
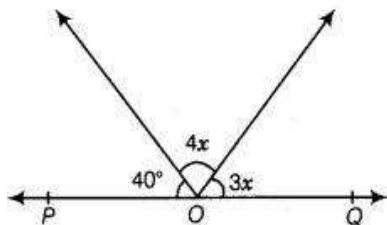
14. An irrational number between 5/7 and 7/9 is

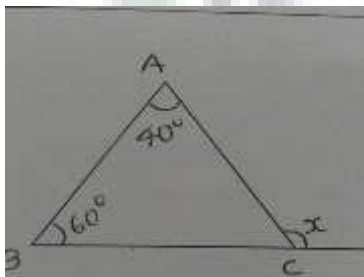15.A number is an irrational if and only if its decimal representation is :

16. The simplest rationalization factor of √50 is :

17. If angle is such that six times its compliment is 12° less than twice its supplement, then the value of angle is

18. In the figure, POQ is a line. The value of x is.

19. Find x in the figure

20 In a cricket match, if a batsman hits a boundary 8 times out of 40 balls he plays. Then, the probability that he didn't

Section – B

[2X6=12]

Solve any 6 question each carry 2 marks

Q 21 the coins are tossed simultaneously 500 times, and we get

Two heads	one heads	no heads
105	275	120

Find the probability 0f occurrence of each of these events.

Q 22 Express 0.33333.....   in the form p/q, where p and q are integers and q $\neq$ 0.

Q 23 Find five rational numbers between 3 and 4.

Q 24 Express 0.66666….in the form P/q where p and q are integers and q $\neq 0$

Q 25 Expand $(2x +3y +z)^2$

Q.26 Locate the point (5,0),(0,5), (2,5), (5,2),(-3,4),(4,-3),(6,1), (-2, -3) in the Cartesian   plane.

Q 27. In which quadrant or on which axis do each of the point (-2,4), (3,-1), (-1,0),(1,2), (-3,-5), (0,7),(0.5,0.4),(5,-8)
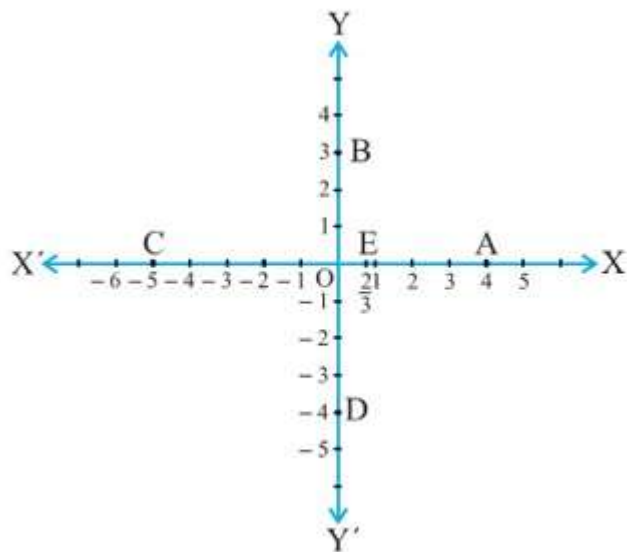
Q28. A coin is tossed 200 times and is found that a tail comes up for 120 times find the probability of getting a tail.

Section – C   **[3X8=24]**

Solve any 8 question each carry 3 marks

Q 29 Write the coordinates of the points marked on the axes in given figure

Q 30 Evaluate 103 x 107

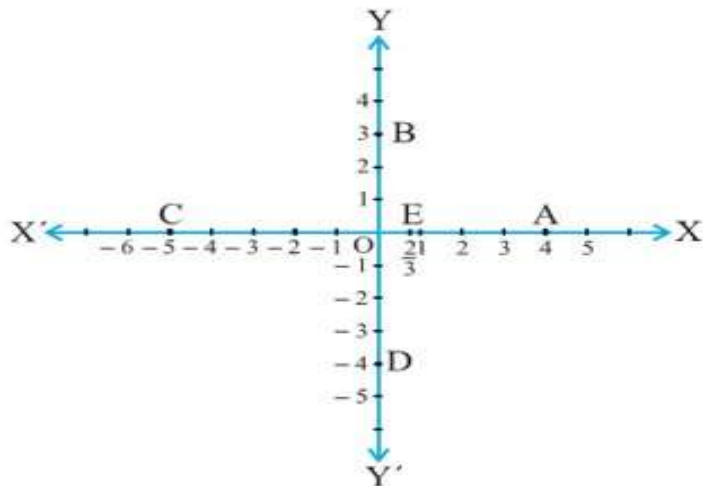Q 31   Find six rational numbers between 3 and 4

Q 32   Locate $\sqrt{2}$ on the number line

Q 34 Write four solution for $2x + y = 7$

Q 35 Write four solution for $x - 4y = 0$

Q 36:. Find: (i) $64^{\frac{1}{2}}$ (ii) $32^{\frac{1}{5}}$

Q 37. Write the coordinates of the points marked on the axes in given figure

Q 38. Express 3. 142678 in the form $\frac{p}{q}$

Section – D   (4 X 6 = 24)

Solves any 6 question each carry 4 marks

Q 39 See in below figure, and write the following:

(i) The coordinates of B.
(ii) The coordinates of C.
(iii) The point identified by the coordinates $(-3, -5)$
(iv) The point identified by the coordinates $(2, -4)$.
(v) The abscissa of the point D.
(vi) The ordinate of the point H.
(vii) The coordinates of the point L.
(viii) The coordinates of the point M.
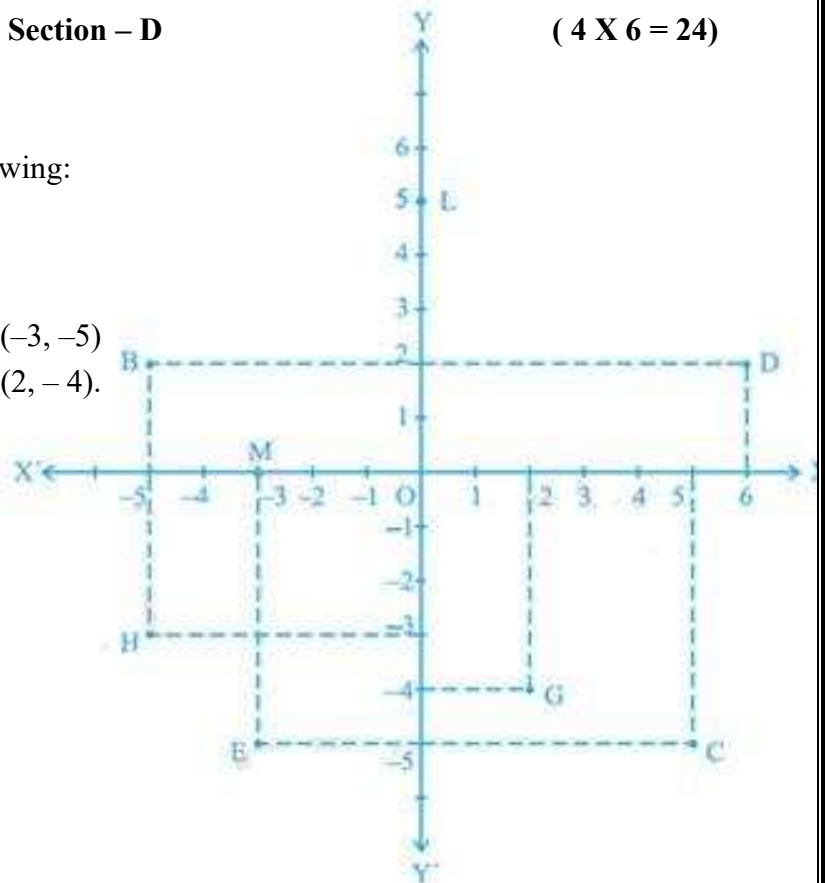
Q 40. . Draw the graph of each of the following linear equations in two variables: $x + y = 4$
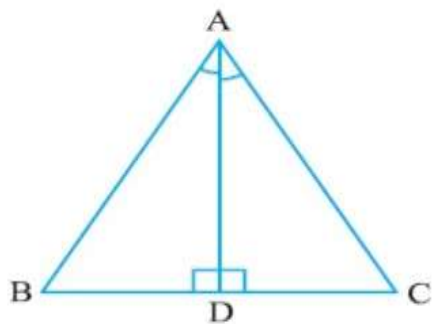
Q 41 . Draw the graph of each of the following linear equations in two variables: $x - y = 2$

Q 42 Simplify: (i) $(\sqrt{3} + \sqrt{7})^2$ (ii) $(5 + \sqrt{7}) (2 + \sqrt{5})$

Q 43. Find the value of K, if x-1 is a factor of P(x): (i) $x^2 + x + k$ (ii) $kx^2 - 3x + k$

Q 44. Draw the graph of $x + y = 7$

Q 45 In triangle ABC. The bisector AD of ∠A is perpendicular to side BC. Show that AB= AC and triangle ABC is isosceles.

Q 46. Two triangles are congruent if two angles and the include side of one triangle are equal to two angles and the included side of other triangle.