

SET-1


Send Answer Sheet (a single pdf) to maths8abc2122@gmail.com

1 The standard form of a linear equation in one variable x is

a) $ax + b = 0$	b) $ax^2 + bx + c = 0$
c) $ax^3 + bx^2 + cx + d = 0$	d) $ax^4 + bx^3 + cx^2 + dx + e = 0$

2 The degree of the equation $x^2 - 2x + 1 = x^2 - 3$ is

a) 1	b) 2
c) 0	d) 3

3 If 9 is added to a number, it becomes 25. This statement in the form of an equation is

a) $x + 9 = 25$	b) $x - 9 = 25$
c) $9x = 25$	d) $\frac{x}{9} = 25$

4 What is the number of vertices of a quadrilateral ?

a) 1	b) 4
c) 3	d) 5

5 How many diagonals does a regular hexagon have ?

a) 2	b) 0
c) 4	d) 9

6 The angle sum of a convex polygon with number of sides n is

a) $(n - 2) 180^\circ$	b) $(2n - 4) 180^\circ$
c) $(n + 2) 180^\circ$	d) $(2n + 4) 180^\circ$

7 Two adjacent angles of a quadrilateral measure 130° and 40° . The sum of the remaining two angles is

a) 190°	b) 180°
c) 360°	d) 90°

8 How many sides does a-regular polygon have if each of its interior angles is 165° ?

a) 12	b) 24
c) 9	d) 6

9 Which of the following statement is false ?

a)	All the angles of a rectangle are equal	b)	No angle of a rectangle can be obtuse
c)	The diagonals of a rectangle bisect each other	d)	The opposite sides of a rectangle are not equal.

10 One angle of a parallelogram is a right angle. The name of the quadrilateral is

a)	square	b)	rhombus
c)	rectangle	d)	kite.

11 What is the appropriate condition to construct a quadrilateral?

a)	When four sides and one diagonal are given	b)	When three sides and one diagonal are given
c)	When two sides and one diagonal are given	d)	None of the above

12 To construct a quadrilateral, we need to know two adjacent side and _____ angles.

a)	One	b)	Two
c)	Three	d)	All four angles

13 If two diagonals are given, then we can construct a:

a)	Rhombus	b)	Rectangle
c)	Kite	d)	Parallelogram

14 All the sides of a regular polygon are:

a)	Equal in length	b)	Unequal in length
c)	Parallel to each other	d)	None of these

15 The perfect square number out of 2, 3, 4 and 5 is

a)	2	b)	3
c)	4	d)	5

16 Which of 105^2 , 216^2 , 333^2 and 111^2 would end with digit 1 ?

a)	105^2	b)	333^2
c)	216^2	d)	111^2

17 How many non-square numbers lie between the pair of numbers 80^2 and 81^2 ?

a)	162	b)	160
c)	161	d)	164

18 Express the square number 5^2 as the sum of two consecutive integers.

a)	$12 + 13$	b)	$10 + 15$
c)	$9 + 16$	d)	$20 + 5$

19 Express 9^2 as the sum of two consecutive integers

a)	$40 + 41$	b)	$50 + 31$
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	c) $36 + 45$	d) $72 + 9$
20	What could be the possible one's digit of the square root of 576 ?	
	a) 4, 6	b) 5, 7
	c) 1, 8	d) 2, 9
21	The smallest number by which 125 should be divided so as to get a perfect square is	
	a) 3	b) 5
	c) 25	d) 125
22	The smallest 3-digit perfect square is	
	a) 999	b) 100
	c) 961	d) 125
23	The cube of an even natural number is	
	a) even	b) odd
	c) may be even, may be odd	d) prime number.
24	The one's digit of the cube of the number 111 is	
	a) 1	b) 2
	c) 3	d) 9
25	What is the one's digit in the cube root of the cube number 1331 ?	
	a) 1	b) 2
	c) 3	d) 4
26	The number of zeroes at the end of the cube root of the cube number 8000000 is	
	a) 1	b) 2
	c) 3	d) 6
27	Find the smallest number by which the number 250 must be divided to obtain a perfect cube.	
	a) 2	b) 3
	c) 4	d) 5
28	The volume of a cube is 64 cm^3 . The edge of the cube is	
	a) 4 cm	b) 8 cm
	c) 16 cm	d) 6 cm
29	The expression $4xy + 7$ is in	
	a) one variable	b) two variables
	c) no variable	d) None of these
30	The value of $x^2 - 2x + 1$ when $x = 1$ is	
	a) 1	b) 2

c)	-2	d)	0
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31 Which of the following is a binomial ?

a)	$3xy$	b)	$4l + 5m$
c)	$2x + 3y - 5$	d)	$4a - 7ab + 3b + 12.$

32 The sum of $x^2 - y^2$, $y^2 - z^2$ and $z^2 - x^2$ is

a)	0	b)	$3x^2$
c)	$3y^2$	d)	$3z^2$

33 The volume of a cuboid of dimensions a, b, c is

a)	abc	b)	$a^2b^2c^2$
c)	$a^3b^3c^3$	d)	none of these

34 The product of x^2 , $-x^3$, $-x^4$ is

a)	x^9	b)	x^5
c)	x^7	d)	x^6

35 $(a - b)^2$ is equal to

a)	$a^2 + b^2 - 2ab$	b)	$a^2 + b^2 + 2ab$
c)	$a^2 + b^2$	d)	$2ab$

36 An algebraic expression that contains only one term is called:

a)	Monomial	b)	Binomial
c)	Trinomial	d)	None of the above

37 If we add, $7xy + 5yz - 3zx$, $4yz + 9zx - 4y$ and $-3xz + 5x - 2xy$, then the answer is:

a)	$5xy + 9yz + 3zx + 5x - 4y$	b)	$5xy - 9yz + 3zx - 5x - 4y$
c)	$5xy + 10yz + 3zx + 15x - 4y$	d)	$5xy + 10yz + 3zx + 5x - 6y$

38 The common factor $12y$ and 30 is

a)	6	b)	12
c)	30	d)	$6y$

39 The common factor of $14a^2b$ and $35a^4b^2$ is

a)	a^4b^2	b)	$35a^4b^2$
c)	$14a^2b$	d)	$7a^2b.$

40 The factorisation $1 + 16x + 64x^2$ is

a)	$(1 - 8x)^2$	b)	$(1 + 8x)^2$
c)	$(8 - x)^2$	d)	$(8 + x)^2$