NPET'S ENGLISGH MEDIUM SCHOOL
CLUB ROAD BELGAUM

SA-1 Revision for Class IX 2024-25

CHAP 01 – Real Numbers

1. Every rational number is:

(A) Natural number (B) Integer (C) Real number (D) Whole number

2. Every natural number is:

(A) Whole number (B) Integer (C) Rational number (D) All of the above

3. Every integer is:

(A) Whole number (B) Natural number (C) Rational number (D) Irrational number

4. Every whole number is:

(A) Natural number (B) Integer (C) Rational number (D) None of the above

5. Every irrational number is:

(A) Whole number (B) Integer (C) Real number (D) None of the above

6. Between two rational numbers

(A) there in no rational number

(B) there is exactly one rational number

(C) there are infinitely many rational numbers

(D) there are only rational numbers no irrational numbers.

7. Write any rational number between 4 and 5.

8. Write any rational number between 3 and 4.

9. Plot $\sqrt{2}$ on a number line.

10. Plot $\sqrt{3}$ on a number line.

CHAP 02 – Polynomials

1. Determine whether $(x-1)$ is a factor of the polynomial $p(x) = 2x^3 - 3x^2 + 7x - 6$.

2. Check whether $(x+1)$ is a factor of the polynomial $p(x) = 6x^3 + 5x^2 - 3x - 2$.

3. Check whether $(x-2)$ is a factor of $2x^3 - 13x^2 + 17x + 12$.

4. Determine whether $(x+1)$ is a factor of x^3+x^2+x+1.

5. Factorize $9x^2+6xy+y^2$.

6. Factorize $x^3+13x^2+32x+20$.

7. Factorize $3x^2-x-4$.

8. Factorize $4\sqrt{3}x^2+5x-2\sqrt{3}$.

9. Factorize x^4+4x^2+3.

10. Factorize $7\sqrt{2}x^2+30x+8\sqrt{5}$.

11. If $f(x)=2x^3-13x^2+17x+12$, find $f(2)$ and $f(-3)$.

12. If $f(x)=x^3-6x^2+11x-6$, find $f(1)$, $f(2)$ and $f(3)$.

13. If $f(x)=3x^4+17x^3+9x^2-7x-10$, find $f(-5)$.

14. If $f(x)=x^3-6x^2-19x+84$, find $f(5)$ and $f(7)$.

15. If $f(x)=2x^3+3x^2-11x-6$, find, $f(2)$ and $f(3)$.

CHAP 03 – Coordinate Geometry

1. Abscissa of all the points on y-axis is _____.

2. The points (-3, 2) and (2, -3) lie in _____ and _____ quadrants respectively.

3. Ordinate of all the points on x-axis is _____.

4. The image of the point (-3, -2) in x-axis lies in _____ quadrant.

5. Taking 0.5cm as 1 unit, plot the following points on the graph paper.

$A(3,1),\ B(-1,-3),\ C(-4,1),\ D(3,-2),\ E(0,-8),\ F(1,0)$

6. Taking 0.5cm as 1 unit, plot the following points on the graph paper.

$A(1,3),\ B(-3,-1),\ C(1,-4),\ D(-2,3),\ E(0,-8),\ F(1,0)$

CHAP 04 – Linear Equations in Two Variables

1. If (4, 19) is a solution of the equation $y=ax+3$, then $a=$

(A) 3 (B) 4 (C) 2 (D) 6

2. The reflection of the point $P\ (-4,5)$ in y-axis has the coordinates

(A) $(-4,-5)$ (B) $(4,5)$ (C) $(4,-5)$ (D) $(5,-4)$

3. The distance between the graph of the equations $x=-3$ and $x=2$ is

(A) 1 (B) 2 (C) 3 (D) 5

4. The distance of the point $P\ (4, 3)$ from the origin is

(A) 4 (B) 3 (C) 5 (D) 7

5. If $x = -1,\ y = 2$ is a solution of the equation $3x + 4y = k$, find the value of k.

6. If $x = 2\alpha + 1$ and $y = \alpha - 1$ is a solution of the equation $2x - 3y + 5 = 0$, find α.

CHAP 05 – Introduction to Euclid's Geometry

1. Axioms are assumed

(A) universal truths in all branches of mathematics

(B) universal truths specific to geometry

(C) theorems

(D) definitions

2. Boundaries of solids are:

(A) surfaces (B) curves (C) lines (D) points

3. How many lines can be drawn through a given point?

4. How many least number of distinct points determine a unique line?

5. How many planes can be made to pass through two points?

CHAP 06 – Lines and Angles

1. Two angles are supplementary. One of them is an acute angle. Which of the following could be the measure of the other angle?

(A) 60° (B) 120° (C) 200° (D) 240°

2. If the measure of two supplementary angles are $(3x + 15)°$ and $(2x + 5)°$, then $x =$

(A) 32 (B) 64 (C) 14 (D) 24

3. Two straight lines AB and CD cut each other at O. If ∠BOD = 63°, then ∠BOC =

(A) 63° (B) 117° (C) 17° (D) 153°

4. Define complementary angles.

5. Define supplementary angles.

6. In Fig. 9.1 find x and then also find $\angle BOC, \angle COD \text{ and } \angle AOD$.

7. In Fig. 9.2, lines XY and MN intersect at O. If $\angle POY = 90°$ and $a: b = 2: 3$, find c.

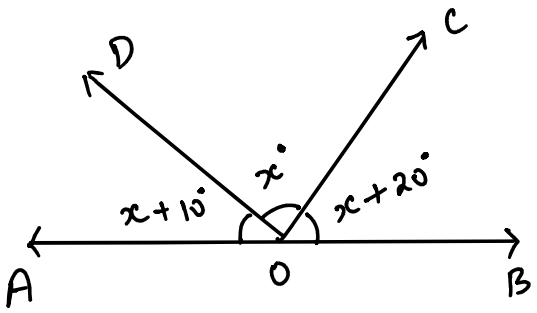

Fig. 9.1

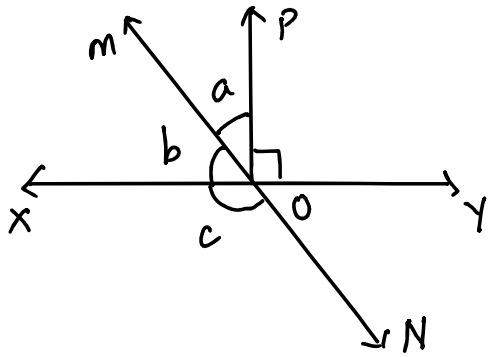

Fig. 9.2

8. In Fig. 9.3, if PQ || ST, ∠ PQR = 110° and ∠ RST = 130°, find ∠ QRS.

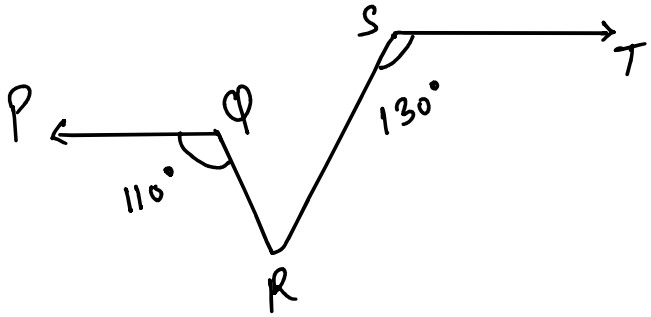

Fig. 9.3

*** All the Best ***