Success Key Worksheet

Std: Class 9 (Eng. & Semi) | **Ch.1. Basic con. in Geometry (DPP)** | **Time: 1 Hr.**

Date: | **Mathematics-2** | **Marks: 25**

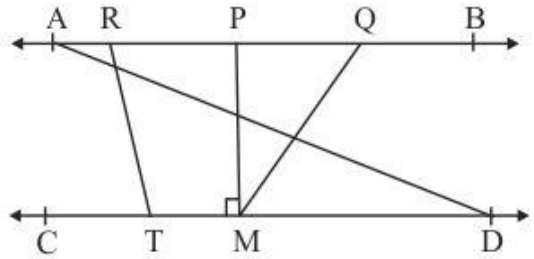
Q.1) Choose the correct alternative answer for each of the following questions: **25**

1. Which of the following can be extended on both sides?
(a) Ray (b) Line (c) Line segment (d) Points

2. Distance between two points in a line is zero when _____.
(a) One point is zero (b) Points are not distinct
(c) Points are very far from each other (d) Points are distinct

3. Find d (A. B), if co-ordinates of A and Bare-2 and 5 respectively.
(a) -2 (b) 5 (c) 7 (d) 3

4. Which line segment defines the distance between the lines given below?



(a) PM (b) MQ (c) MR (d) AD

5. All _____ angles are congruent with each other.
(a) Acute (b) Obtuse (c) Reflex (d) Right

6. "Lines are parallel if they don't intersect" is a _____.
(a) axiom (b) definition (c) postulate (d) proof

7. Consider AB to be a line segment. How many midpoints of AB are possible?
(a) 1 (b) 2 (c) 3 (d) 4

8. If the co-ordinates of points P and Q are 3 and - 5 respectively then d (P, Q) = _____.
(a) 9 units (b) 2 units (c) 8 units (d) 7 units

9. How many mid points does a segment have?
(a) Only one (b) two (c) three (d) many

10. d (AB) + d (EC) =?
(a) 3 units (b) 2 units (c) 4 units (d) 5 units

11. The lines which do not meet each other are _____.
(a) Intersecting (b) Parallel (c) Congruent (d) Perpendicular

12. The number associated with the point is called _____ of that point.
(a) Origin (b) Midpoint (c) Co-ordinate (d) Graph

13. Find the distance between A at (-8) and B at 3.
(a) -5 (b) 11 (c) -11 (d) 5

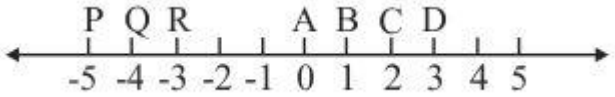
14. Arrange the following segments in the ascending order of their measurements, AB = 2.8 cm, BC = 1.5 cm and CD = 3.2 cm
(a) AB < BC < CD (b) CD < AB < BC (c) BC < AB < CD (d) AB < CD < BC

15. A statement which is universally true and need not be proved is called _____.
(a) Axiom (b) Postulate (c) both a and b (d) Theorem

16. How many lines are determined by three distinct points?
(a) two (b) three (c) one or three (d) six

17. The angles in linear pair are _____.
(a) Congruent (b) Complementary (c) Supplementary (d) Reflex

18. Observe the number line given below:

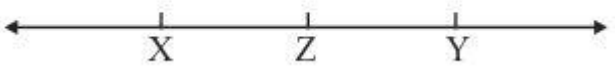


Find d(Q, C)
(a) 6 (b) 4 (c) 2 (d) 5

19. Which points are at a distance of 3 units from B?
(a) C and A (b) C and F (c) E and F (d) A and C

20. Distance between P and Q is 300 km, Q and R is 115 km and P and R is 185 km. What is true for points P, Q and R?
(a) P, Q and R are collinear
(b) P, Q and R are all distinct
(c) R lies between P and Q
(d) All of the above

21. If points X, Y and Z are collinear and d(X, Z) = 17, d (Z, Y) = 12. Find d(X, Y)



(a) 5 (b) 29 (c) 15 (d) 30

22. Which figure is formed by four non-collinear points such that any three points are not collinear?
(a) Triangle (b) Angle (c) Pentagon (d) Quadrilateral

23. From a single point, we can draw _____ lines.
(a) One (b) Infinite (c) Two (d) Five

24. Two different points determine _____ line.
(a) Six (b) Infinite (c) Two (d) One and only one

25. The distance between any two points is _____ number.
(a) Negative real (b) Rational (c) Non – negative real (d) Irrational

Success Key Worksheet

Std: Class 9 (Eng.& Semi) **1. Basic con. in Geometry** **Time: 1 Hr.**

DPP (Answer Key)

Date: **Mathematics-2** **Max Marks: 25**

Q.1) Choose the correct alternative answer for each of the following questions: **25**

1) Ans. (c) Line segment

A line segment needs only two points to extend in opposite direction.

2) Ans. (b) Points are not distinct

Distance between two points in a line is defined as the difference between their position values. When two points are not distinct or different but same only then the distance between them is zero.

3) Ans. (c) 7

4) Ans. (a) PM

The distance between two parallel lines is the (smallest) perpendicular line segment
Here PM is the perpendicular line.

5) Ans. (d) Right

Measure of acute angles varies from 0^o to 90^o, measure of obtuse angles varies from 90^o to 180^o and measure of reflex angles varies from 180^o to 270^o.
All right angles measure 90^o only.
Thus, all right angles are congruent.

6) Ans. (b) definition

7) Ans. (a) 1

Midpoint is the point which divides the line segment into equal halves.
Thus, a line segment has only one midpoint.

8) Ans. (c) 8 units

9) Ans. (a) Only one

10) Ans. (d) 5 units

11) Ans. (b) Parallel

The lines which do not meet each other are called parallel lines.

12) Ans. (c) Co-ordinate

13) Ans. (b) 11

Distance between two points in a line is defined as the difference between their position values.

$d(A, B) = 3 - (-8)$

$= 3 + 8$

$= 11$

14) Ans. (c) BC < AB < CD

Observe that

3.2 cm > 2.8 cm > 1.5 cm

CD > AB > BC

In ascending order

BC < AB < CD

15) Ans. (c) both a and b

16) Ans. (c) one or three

17) Ans. (c) Supplementary

Sum of angles in linear pair is 180º, they form a straight line. Thus, angles in linear pair are supplementary.

18) Ans. (a) 6

Distance between two points in a line is defined as the difference between their position values.

Here Q is at (-4) and C is at 2

d (Q, C) = 2 – (-4)

= 2 + 4

= 6

19) Ans. (b) C and F

20) Ans. (d) All of the above

d(P, Q) = 300 km, d (Q, R) = 115 km, d(P, R) = 185 km

clearly, d (P, Q) = d (Q, R) + d (P, R)

300 = 115 km + 185 km

Hence, P, Q and R are all distinct and collinear with R lying between P and Q

21) Ans. (b) 29

Distance between two points in a line is defined as the difference between their position values.

As points X, Y and Z are collinear,

d (X, Y) = d(X, Z) + d(Z, Y)

d (X, Y) = 17 + 12

= 29

22) Ans. (b) Angle

23) Ans. (b) Infinite

24) Ans. (d) One and only one

25) Ans. (c) Non – negative real

Distance between two points is the positive values, no matter in which direction is it measured.

Thus, distance between two points is non – negative real number.