Wada Nirmiti Education Society's

GURUKUL GLOBAL SCHOOL

WORKSHEET

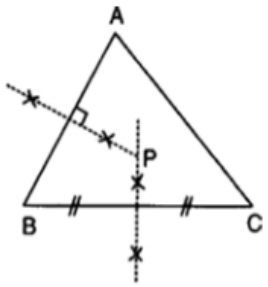
LESSON: 8

SUB: Maths **Playing With Constructions** **STD:VI**

NAME: _____ROLL No: _____DATE:

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1. In △ABC, the perpendicular bisectors of sides AB and BC meet at point P, then: **[1]**



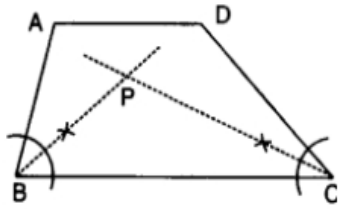
a) PA = PB = PC

b) PB = PC

c) PA = PC

d) PB ≠ PC

2. Point P is the point of intersection of the bisectors of angles ABC and DCB, then: **[1]**



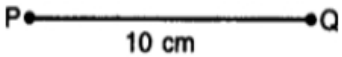
a) P is equidistant from AB, BC and CD

b) PB = PC

c) P is equidistant from BC and CD

d) P is equidistant from AB = BC

3. The length of line segment PQ = 10 cm. The number of triangles PAQ that can be drawn with AP = 3 cm and AQ = 6 cm is: **[1]**



a) infinite

b) 1

c) 0

d) 2

4. The number of parallel lines, that can be drawn parallel to a given line from a point outside it, is: **[1]**

a) 1

b) 2

c) 0

d) infinite

5. An angle that cannot be constructed using ruler and compass only is: **[1]**

a) 22.5^o

b) 52^o

c) 105^o

d) 67.5^o

6. The length of line segment PQ = 10 cm. The number of triangles APQ (point A is above PQ) that can be drawn with AP = BP = 10 cm. **[1]**

a) infinite b) 0

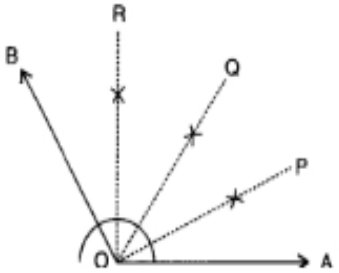
c) 1 d) 2

7. The instrument to draw a circle is [1]

a) divider b) protractor

c) ruler d) compasses

8. Angle AOB = 120^0, is divided into four equal parts. The measure of angle ROA is: [1]



a) 45^0 b) 90^0

c) 60^0 d) 30^0

9. Draw a circle of radius 3.5 cm. [1]
10. Which geometrical instrument can be used to draw an arc? [1]
11. Draw two circles of radii 3cm and 2cm with same centre 'O'. [2]
12. Draw a line segment OP = 8 cm. Use set-squares to construct $\angle POQ = 90^0$ such that OQ = 6 cm. Join P and Q; then measure the length of PQ. [2]
13. Draw a circle of diameter 5cm, and write steps of construction. [2]
14. Draw a line segment OA = 5 cm. Use set-squares to construct angle $AOB = 60^0$ such that OB = 3 cm, Join A and B; then measure the length of AB. [2]
15. Draw a circle of radius 2cm, with centre O and mark points P, Q, R such that 'P' is on the circle, 'Q' is interior of the circle and 'R' is exterior of the circle. [2]
16. Construct a triangle ABC, when: AB = 6 cm, BC = 8 cm and AC = 4 cm. [3]
17. Construct a triangle ABC, when: AB = 3 cm, BC = 7 cm and $\angle B = 90^0$. [3]
18. Construct a triangle ABC, when: AB = 5.4 cm, $\angle A = 30^0$ and $\angle B = 90^0$. Measure $\angle C$ and side BC. [3]
19. Construct a triangle ABC, when: AB = 3.5 cm, AC = 4.8 cm and BC = 5.2 cm [3]
20. Draw $\angle POR = 75^0$ by using set-squares. On PQ mark a point M such that MQ = 3 cm. On QR mark a point N such that QN = 4 cm. Join M and N. Measure the length of MN. [3]
21. Construct a triangle ABC, when: AB = BC = 5 cm and AC = 3 cm. Measure angles A and C is $\angle A = \angle C$? [3]
22. Construct the following angle, using ruler and a compass only 135^0. [3]
23. Draw a line segment AB = 7 cm. Mark a point P on AB such that AP = 3 cm. Draw perpendicular on to AB at point P. [3]
24. Draw line AB = 6 cm. Construct angle $ABC = 60^0$. Then draw the bisector of angle ABC. [3]
25. Construct the following angle, using ruler and a compass only 90^0. [3]
26. Construct an equilateral ΔABC such that each side is 6 cm. [5]
27. Construct an isosceles $\triangle ABC$ such that base AB = 6.2 cm and base angle = 45^0. Measure the other two sides of the triangle. [5]

28. Construct a $\triangle ABC$ such that AB = 7 cm, BC = 5 cm and $\angle ABC = 60^{o}$ **[5]**

29. Construct an equilateral triangle ABC such that its one side = 5.5 cm. Construct a circumcircle to this triangle. **[5]**

30. Using ruler and compasses, construct the 22.5^{o} angles. **[5]**

31. In the case, given below, draw a line through point P and parallel to AB: **[5]**

