EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Polygons

Grade : ICSE Grade IX



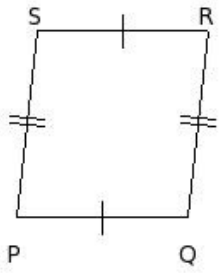
1. Sum of the interior angles in a triangle is

   (i) 210° (ii) 190° (iii) 185° (iv) 180° (v) 195°

2. Find the number of sides in a regular polygon if each exterior angle is 40°

   (i) 7 (ii) 8 (iii) 12 (iv) 10 (v) 9

3. Identify the figure below




   (i) parallelogram (ii) kite (iii) trapezium (iv) circle (v) triangle

4. How many diagonals does an octagon have?

   (i) 18 (ii) 23 (iii) 21 (iv) 19 (v) 20

5. The value of the interior angle in a regular polygon when the exterior angle is given

   (i) 180°+ (exterior angle) (ii) 180°- (exterior angle) (iii) 90°+ (exterior angle) (iv) 360°- (exterior angle)

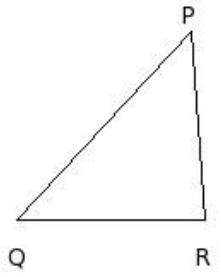
6. Sum of the interior angles in an octagon is

   (i) 1085° (ii) 1095° (iii) 1080° (iv) 1110° (v) 1090°

7. The value of each interior angle in an n-sided regular polygon is

   (i) $\left(\frac{n}{360}\right)°$ (ii) $\left(\frac{360}{n}\right)°$ (iii) $\left[\frac{(2n - 4) \times 180}{n}\right]°$ (iv) $\left[\frac{(2n - 4) \times 90}{n}\right]°$

8. Identify the figure below




   (i) triangle (ii) circle (iii) octagon (iv) decagon (v) hexagon

9. Sum of the interior angles in a hexagon is

   (i) 730° (ii) 735° (iii) 725° (iv) 720° (v) 750°

10. How many diagonals does a hexagon have?

(i) 11 (ii) 9 (iii) 8 (iv) 7 (v) 10

11. The number of diagonals in a regular polygon with n sides is

(i) $\frac{(n)(n+2)}{2}$ (ii) $\frac{(n)(n-3)}{2}$ (iii) $\frac{(n)(n-1)}{2}$ (iv) $\frac{(n)(n-2)}{2}$ (v) $\frac{(n)(n+3)}{2}$

12. Sum of the interior angles in a nonagon is

(i) 1270° (ii) 1265° (iii) 1275° (iv) 1290° (v) 1260°

13. Two adjacent angles of a parallelogram NOPQ are in the ratio 2 : 16. Find the measure of each of its angles.

(i) N=18°,O=162°,P=19°,Q=161° (ii) N=22°,O=159°,P=18°,Q=161°

(iii) N=20°,O=160°,P=20°,Q=160° (iv) N=21°,O=159°,P=22°,Q=158°

(v) N=19°,O=158°,P=21°,Q=162°

14. Sum of the interior angles in a heptagon is

(i) 915° (ii) 930° (iii) 910° (iv) 900° (v) 905°

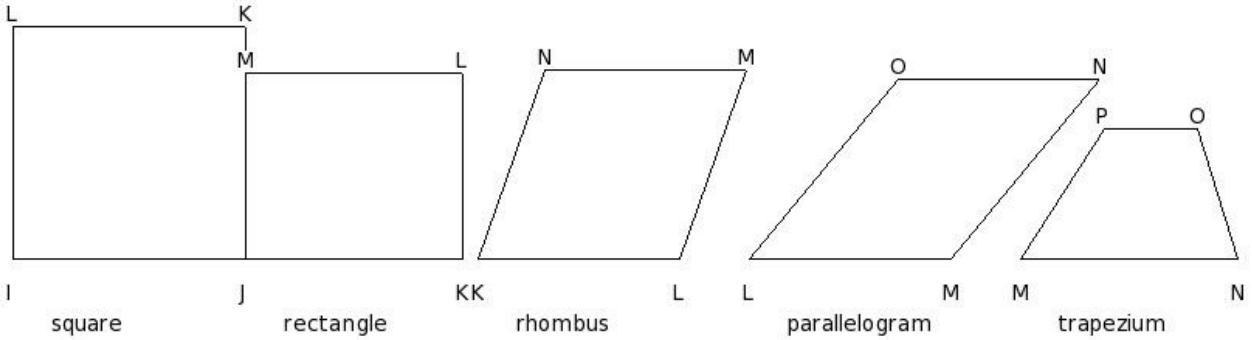
15. Sum of the interior angles in a pentagon is

(i) 545° (ii) 550° (iii) 540° (iv) 570° (v) 555°

16. Sum of the interior angles in a quadrilateral is

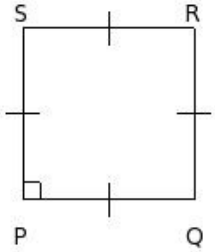
(i) 375° (ii) 360° (iii) 390° (iv) 365° (v) 370°

17. Which of the following figures is a regular quadrilateral?



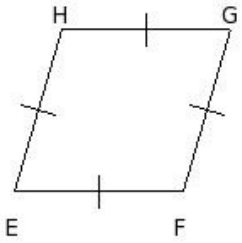

(i) trapezium (ii) parallelogram (iii) rectangle (iv) rhombus (v) square

18. Identify the figure below



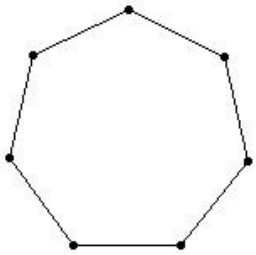

(i) triangle (ii) rectangle (iii) parallelogram (iv) kite (v) square

19. Identify the figure below




(i) kite (ii) circle (iii) rhombus (iv) parallelogram (v) trapezium

20. Identify the figure below



(i) heptagon (ii) circle (iii) pentagon (iv) angle (v) triangle

21. The value of each exterior angle in an n-sided regular polygon is

(i) $\left(\frac{n}{360}\right)^\circ$ (ii) $\left[\frac{(2n - 4) \times 180}{n}\right]^\circ$ (iii) $\left[\frac{(2n - 4) \times 90}{n}\right]^\circ$ (iv) $\left(\frac{360}{n}\right)^\circ$

22. How many diagonals does a decagon have?

(i) 33 (ii) 36 (iii) 34 (iv) 38 (v) 35

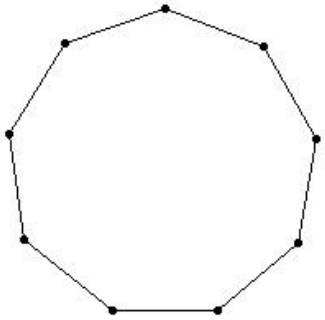
23. How many diagonals does a nonagon have?

(i) 26 (ii) 28 (iii) 29 (iv) 27 (v) 24

24. How many diagonals does a heptagon have?

(i) 13 (ii) 14 (iii) 15 (iv) 17 (v) 12

25. Identify the figure below



(i) circle (ii) triangle (iii) decagon (iv) nonagon (v) pentagon

## Assignment Key

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|---|---|---|---|---|---|
| 1) (iv) | 2) (v) | 3) (i) | 4) (v) | 5) (ii) | 6) (iii) |
| 7) (iv) | 8) (i) | 9) (iv) | 10) (ii) | 11) (ii) | 12) (v) |
| 13) (iii) | 14) (iv) | 15) (iii) | 16) (ii) | 17) (v) | 18) (v) |
| 19) (iii) | 20) (i) | 21) (iv) | 22) (v) | 23) (iv) | 24) (ii) |
| 25) (iv) | | | | | |