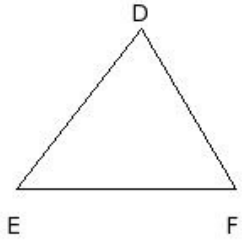
EduSahara™ Assignment

Name : Polygons

Chapter : Polygons

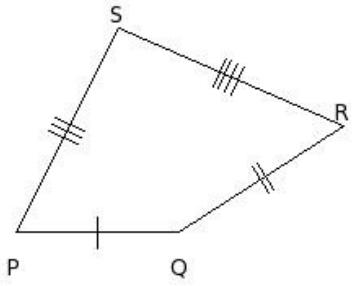
Grade : ICSE Grade IX

1. Identify the figure below



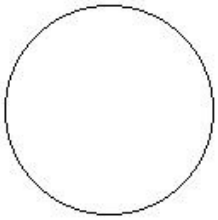
(i) hexagon (ii) octagon (iii) triangle (iv) circle (v) quadrilateral

2. Identify the figure below



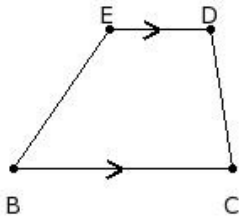
(i) hexagon (ii) pentagon (iii) quadrilateral (iv) nonagon (v) triangle

3. Identify the figure below



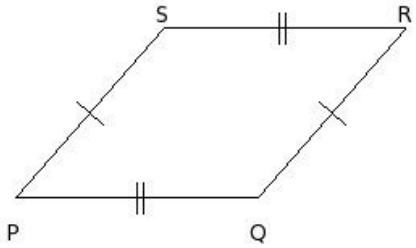
(i) pentagon (ii) hexagon (iii) nonagon (iv) octagon (v) circle

4. Identify the figure below



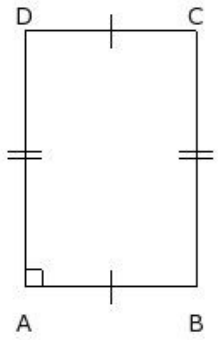
(i) triangle (ii) rhombus (iii) angle (iv) trapezium (v) parallelogram

5. Identify the figure below



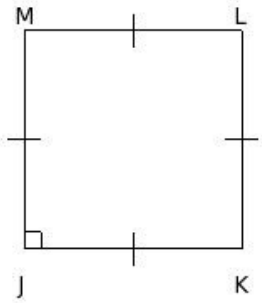
(i) triangle (ii) parallelogram (iii) square (iv) circle (v) rhombus

6. Identify the figure below



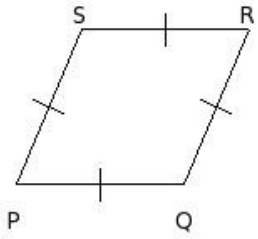
(i) triangle (ii) trapezium (iii) rhombus (iv) rectangle (v) circle

7. Identify the figure below



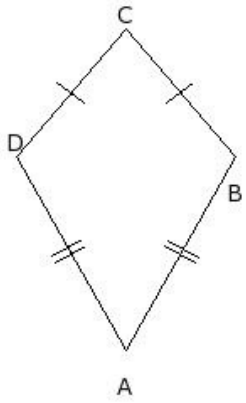
(i) circle (ii) trapezium (iii) kite (iv) rhombus (v) square

8. Identify the figure below



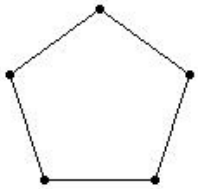
(i) rectangle (ii) square (iii) angle (iv) parallelogram (v) rhombus

9. Identify the figure below



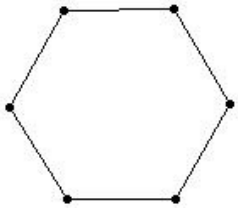
(i) kite (ii) parallelogram (iii) rectangle (iv) trapezium (v) angle

10. Identify the figure below



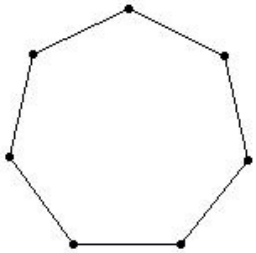
(i) hexagon (ii) circle (iii) decagon (iv) pentagon (v) nonagon

11. Identify the figure below



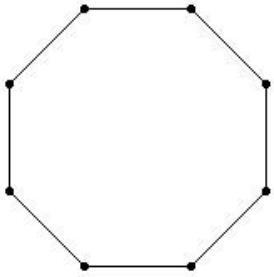
(i) quadrilateral (ii) angle (iii) heptagon (iv) hexagon (v) circle

12. Identify the figure below



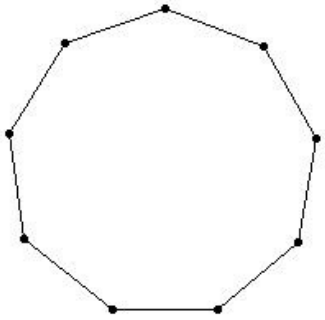
(i) heptagon (ii) angle (iii) hexagon (iv) circle (v) pentagon

13. Identify the figure below



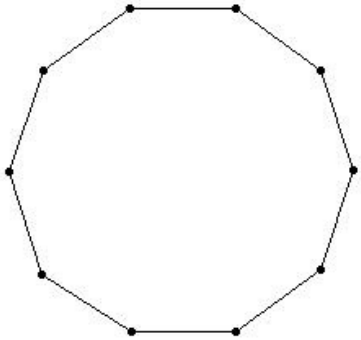
(i) circle (ii) octagon (iii) heptagon (iv) angle (v) pentagon

14. Identify the figure below



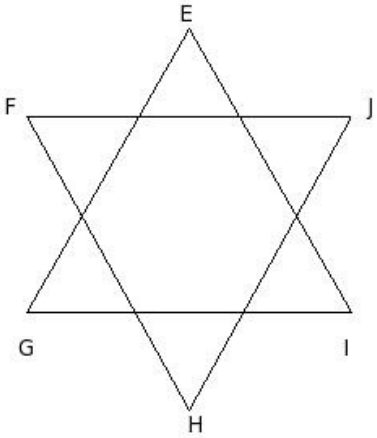
(i) nonagon (ii) heptagon (iii) circle (iv) angle (v) decagon

15. Identify the figure below



(i) decagon (ii) nonagon (iii) heptagon (iv) quadrilateral (v) circle

16. In the given two equilateral triangles, find ∠E + ∠G + ∠I + ∠F + ∠H + ∠J .



(i) 358° (ii) 361° (iii) 360° (iv) 362° (v) 359°

17. The angles of a quadrilateral LMNO are in the ratio 9 : 20 : 4 : 39. Find the measure of each angle of the quadrilateral.

(i) L=43°,M=102°,N=19°,O=196° (ii) L=45°,M=100°,N=20°,O=195°

(iii) L=47°,M=99°,N=18°,O=196° (iv) L=44°,M=98°,N=21°,O=197° (v) L=46°,M=99°,N=22°,O=193°

18. Two adjacent angles of a parallelogram FGHI are in the ratio 19 : 71. Find the measure of each of its angles.

(i) F=36°,G=144°,H=37°,I=143° (ii) F=37°,G=140°,H=39°,I=144° (iii) F=39°,G=141°,H=40°,I=140°

(iv) F=40°,G=141°,H=36°,I=143° (v) F=38°,G=142°,H=38°,I=142°

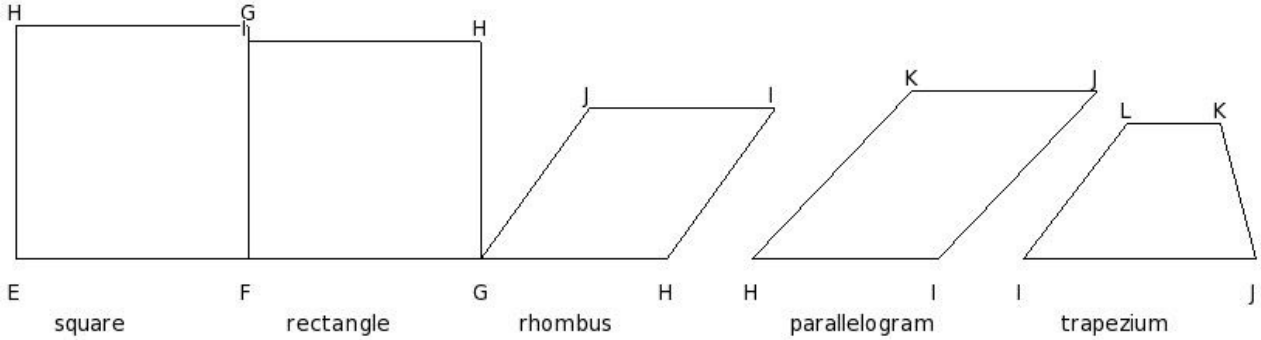
19. Three angles of quadrilateral measure 130.47°, 47.22° and 129.98° respectively. Find the measure of the fourth angle

(i) 51.33° (ii) 53.33° (iii) 54.33° (iv) 50.33° (v) 52.33°

20. Three angles of a quadrilateral are equal and the fourth angle measure 112.88°. What is the measure of each of the equal angles?

(i) 81.37° (ii) 80.37° (iii) 83.37° (iv) 84.37° (v) 82.37°

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



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

22. Sum of the interior angles in a triangle is

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

23. Sum of the interior angles in a quadrilateral is

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

24. Sum of the interior angles in a pentagon is

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

25. Sum of the interior angles in a hexagon is

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

26. Sum of the interior angles in a heptagon is

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

27. Sum of the interior angles in an octagon is

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

28. Sum of the interior angles in a nonagon is

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

29. Sum of the interior angles in a decagon is

(i) 1470° (ii) 1445° (iii) 1455° (iv) 1450° (v) 1440°

30. How many diagonals does a triangle have?

(i) 4 (ii) 1 (iii) 0 (iv) 2 (v) 3

31. How many diagonals does a quadrilateral have?

(i) 0 (ii) 3 (iii) 1 (iv) 4 (v) 2

32. How many diagonals does a pentagon have?

(i) 6 (ii) 8 (iii) 5 (iv) 2 (v) 4

33. How many diagonals does a hexagon have?

(i) 8 (ii) 10 (iii) 6 (iv) 9 (v) 12

34. How many diagonals does a heptagon have?

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

35. How many diagonals does an octagon have?

(i) 20 (ii) 19 (iii) 18 (iv) 22 (v) 21

36. How many diagonals does a nonagon have?

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

37. How many diagonals does a decagon have?

(i) 32 (ii) 35 (iii) 38 (iv) 34 (v) 36

38. Find the number of sides in a regular polygon if each interior angle is $165°$

(i) 24 (ii) 23 (iii) 22 (iv) 25 (v) 27

39. Find the number of sides in a regular polygon if each exterior angle is $24°$

(i) 17 (ii) 13 (iii) 15 (iv) 16 (v) 14

40. 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) $\frac{(n)(n+3)}{2}$

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

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

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

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

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

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

44. 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)

Assignment Key

1) (iii)	2) (iii)	3) (v)	4) (iv)	5) (ii)	6) (iv)
7) (v)	8) (v)	9) (i)	10) (iv)	11) (iv)	12) (i)
13) (ii)	14) (i)	15) (i)	16) (iii)	17) (ii)	18) (v)
19) (v)	20) (v)	21) (v)	22) (iv)	23) (iii)	24) (v)
25) (i)	26) (i)	27) (ii)	28) (ii)	29) (v)	30) (iii)
31) (v)	32) (iii)	33) (iv)	34) (iv)	35) (i)	36) (ii)
37) (ii)	38) (i)	39) (iii)	40) (ii)	41) (i)	42) (ii)
43) (ii)	44) (i)				