Polygon Worksheet – 3

1. If a regular polygon is having 12 sides, then find the interior and exterior angles.

a)   120º and 60º

b)   30º and 150º

c)   145º and 35º

d)   150º and 30º

2. If a regular polygon is having each exterior angle 45º, then find the number of sided of the polygon.

a)   5

b)   6

c)   8

d)   7

3. If a regular polygon is having each interior angle 160º, then find the number of sided of the polygon.

a)   17

b)   15

c)   18

d)   16

4. Find the number of sides of a regular polygon, if its interior angle is $\frac{6}{5}$ of a right angle.

a)   6

b)   5

c)   7

d)   8

5. Find the number of sides of a regular polygon, if its exterior angle is $\frac{1}{5}$ of a right angle.

a)   6

b)   5

c)   7

d)   10

6. Find the number of sides in a regular polygon, if its interior angle is equal to exterior angle.

a)   4

b)   5

c)   6

d)   7

7. The exterior angle of a regular polygon is one third of its interior angle. Find the number of sides of the polygon.

a)   120º

b)   135º

c)   145º

d)   150º

8. It is possible to have a regular polygon having each exterior angle as 75º. Mark True / False.

a)   True

b)   False

9. It is possible to have a regular polygon whose each exterior angle is equal to 40º of a right angle. Mark True / False.

a)   True

b)   False

10. The ratio between the interior angle and the exterior angle of a regular polygon is 2 : 1. Find each exterior angle of the polygon

a)   120º

b)   45º

c)   150º

d)   60º

11. Calculate the number of sides of a regular polygon, if its interior angle is 5 times its exterior angle.

a)   7

b)   10

c)   8

d)   12

12. Calculate the number of sides of a regular polygon, if its exterior angle exceeds its interior angle by 60º.

a)   2

b)   3

c)   4

d)   5

13. The ratio of the number of sides of two regular polygons is 1 : 2, and the ratio of the sum of their interior angles is 3 : 8. Find the number of sides of each polygon.

a)   4 and 8

b)   3 and 6

c)   5 and 10

d)   6 and 12

14. If the sum of all interior angles of a polygon is 16 right angles, then find the number of sides of the polygon.

a)   7

b)   10

c)   8

d)   12

15. The interior angles of a pentagon are in the ratio of 4 : 5 : 6 : 7 : 5. Find the smallest angle of the pentagon.

a)   20º

b)   60º

c)   80º

d)   100º

16. The number of sides in a polygon can be a natural number or a fraction or a decimal number. Mark True / False.

a)   True

b)   False

17. The smallest number of sides of a polygon is 4. Mark True / False.

a)   True

b)   False

18. If the measures of exterior angles of a pentagon is $x°$, $2x°$, $3x°$, $4x°$, and $5x°$, then find the largest exterior angle.

a)   120°   b)   130°

c)   110°   d)   150°

19. Two angles of a hexagon are 120° and 100°. If the remaining four angles are equal, then find its smallest angle.

a)   120°   b)   125°

c)   110°   d)   100°

20. The angles of a hexagon are $x + 10°$, $2x + 20°$, $2x – 20°$, $3x – 50°$, $x + 40°$, and $x + 20°$. Find the value of $x°$.

a)   120°   b)   70°

c)   110°   d)   80°