

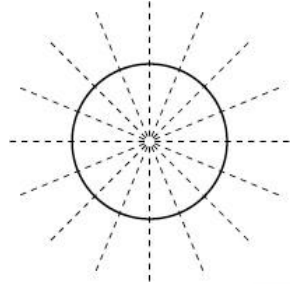
Class: 6
Subject: Mathematics
Topic: Symmetry
No. of Questions: 20
Duration: 60 Min
Maximum Marks: 60

1. Which of the following alphabets has infinite lines of symmetry?

- A. O
- B. B
- C. Q
- D. A

Answer: A

In O around the Centre it has infinite lines of symmetry.



2. To draw a pair of parallel lines we can use

- A. Compass
- B. Divider
- C. Scale set squares
- D. Any of these

Answer: D

Factual

3. Which of the following alphabets has horizontal line of symmetry?

- A. H
- B. B
- C. E
- D. All the above

Answer: D

---H--- ---B--- ---E---

All are having horizontal line of symmetry.

4. Two lines are said to be parallel when theyat any point.

- A. Do not intersect
- B. Intersect
- C. Are perpendicular
- D. None of these

Answer: A

Factual

5. The angles is to be bisected to obtain an angle of 90° is

- A. 60° and 45°
- B. 60° and 120°
- C. 120° and 180°
- D. 30° and 60°

Answer: B

$$\frac{60+120}{2} = 90^\circ$$

60° and 120° are bisected

6. A square has

- A. One line of symmetry
- B. Two lines of symmetry
- C. Three lines of symmetry
- D. Four lines of symmetry

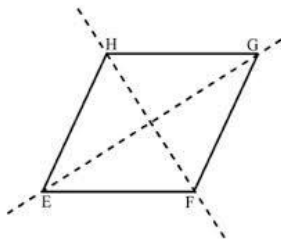
Answer: D

Factual

7. A rhombus is symmetrical about

- A. The line joining the midpoints of its opposite sides
- B. Each of its diagonals
- C. Perpendicular bisector of each of its sides
- D. None of these

Answer: B



Symmetrical about diagonals

8. Which of the following triangles has no lines of symmetry?

- A. A scalene triangle
- B. An isosceles triangle
- C. An equilateral triangle
- D. All the above

Answer: A

Factual

9. A line segment $\overline{PQ} = 8.2$ cm is bisected at O, then length of \overline{PO} is

- A. 4.2 cm
- B. 4 cm
- C. 4.1 cm
- D. 16.4 cm

Answer: C

It will be half of PQ i.e., $\frac{8.2}{2} = 4.1$ cm

10. An angle of 15° is drawn using a pair of compass and ruler by

- A. Bisecting 60°
- B. Bisecting 60° and 120°
- C. Bisecting 60° and then bisecting it again
- D. Bisecting 60° and 180°

Answer: C

By bisecting 60° you will get 30° and by bisecting 30° we will get 15°

11. A circle has

- A. One line of symmetry
- B. Three lines of symmetry
- C. Two lines of symmetry
- D. Many lines of symmetry

Answer: D

Along Centre it has got infinite lines of symmetry.

12. A line segment has.....end points.

- A. No
- B. 2
- C. 1
- D. 3

Answer: B

Terminated line on both sides is called line segment. So has got 2 end points.

13. A line has.....end points.

- A. No
- B. 2
- C. 1
- D. 3

Answer: A
Factual

14. Bisecting means dividing into two parts.

- A. Unequal
- B. Equal
- C. Triangular
- D. None of these

Answer: B
Factual

15. A perpendicular is drawn to a line segment \overline{MN} at N using protractor and point P is marked on perpendicular, then

- A. $\overline{MP} \perp \overline{NP}$
- B. $\overline{MN} \parallel \overline{NP}$
- C. $\overline{MN} \parallel \overline{MP}$
- D. $\overline{MN} \perp \overline{NP}$

Answer: D



$MN \perp PN$

16. To draw an angle of 150° using a pair of compass and ruler

- A. Bisect angle between 120° and 180°
- B. Bisect angle between 60° and 120°
- C. Bisect angle between 0° and 160°
- D. None of these

Answer: A

$$\frac{120 + 180}{2} = 150^\circ$$

So bisect 120° and 180°

17. An angle which can be constructed using a pair of compass and ruler is

- A. 20°
- B. 80°
- C. 60°
- D. 110°

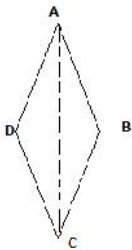
Answer: C

60° is possible

18. ABCD is a kite in which $AB = AD$ and $BC = DC$. The kite is symmetrical about

- A. The diagonal AC
- B. The diagonal BD
- C. Side AB
- D. Side BC

Answer: A



Symmetrical about AC but not about BD

19. An angle $\angle XYZ = 75^\circ$ is bisected by an angular bisector YU, then the measure of $\angle UYZ$ is

- A. 37°
- B. 37.5°
- C. 47.5°
- D. 47°

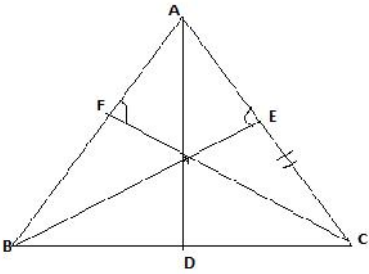
Answer: B

It will be $\frac{75}{2} = 37.5^\circ$

20. In $\triangle ABC$, $AB = AC$ and AD perpendicular BC, BE perpendicular AC and CF perpendicular AB. Then, $\triangle ABC$ is symmetrical about

- A. AD
- B. BE
- C. CF
- D. None of these

Answer: A



ABC will be symmetrical about AD as $AB = AC$ for other perpendiculars Opposite sides are not equal

So cannot be symmetric.

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