

# INDIAN SCHOOL AL WADI AL KABIR

**Class VIII**, Mathematics *Worksheet-Understanding Quadrilaterals*

**ANSWERS**

**05-05-20**

## OBJECTIVE TYPE (1 Mark)

|             |   |                   |          |                   |          |                  |          |                   |
|-------------|---|-------------------|----------|-------------------|----------|------------------|----------|-------------------|
| <b>Q.1.</b> | In a quadrilateral the angles are in the ratio 1:2:3:4. The measure of the smallest angle is                            |                   |          |                   |          |                  |          |                   |
|             | <b>A</b>  | 36 <sup>0</sup>   | <b>B</b> | 40 <sup>0</sup>   | <b>C</b> | 18 <sup>0</sup>  | <b>D</b> | 20 <sup>0</sup>   |
| <b>Q.2.</b> | Each interior angle of a regular polygon is 135 <sup>0</sup> .How many sides does it have?                              |                   |          |                   |          |                  |          |                   |
|             | <b>A</b>  | 10                | <b>B</b> | 8                 | <b>C</b> | 6                | <b>D</b> | 5                 |
| <b>Q.3.</b> | In a quadrilateral three angles are equal and the fourth angle is 150 <sup>0</sup> .Then the measure of equal angles is |                   |          |                   |          |                  |          |                   |
|             | <b>A</b>  | 30 <sup>0</sup>   | <b>B</b> | 50 <sup>0</sup>   | <b>C</b> | 70 <sup>0</sup>  | <b>D</b> | 80 <sup>0</sup>   |
| <b>Q.4.</b> | The sum of interior angles of polygon with 12 sides   |                   |          |                   |          |                  |          |                   |
|             | <b>A</b>  | 1800 <sup>0</sup> | <b>B</b> | 2160 <sup>0</sup> | <b>C</b> | 360 <sup>0</sup> | <b>D</b> | 1620 <sup>0</sup> |
| <b>Q.5.</b> | The measure of interior angle of a regular pentagon is  |                   |          |                   |          |                  |          |                   |
|             | <b>A</b>  | 72 <sup>0</sup>   | <b>B</b> | 108 <sup>0</sup>  | <b>C</b> | 120 <sup>0</sup> | <b>D</b> | 80 <sup>0</sup>   |
| <b>Q.6.</b> | Each exterior angle of a regular polygon is 72 <sup>0</sup> .How many sides does it have?                               |                   |          |                   |          |                  |          |                   |
|             | <b>A</b>  | 4                 | <b>B</b> | 5                 | <b>C</b> | 6                | <b>D</b> | 10                |
| <b>Q.7.</b> | Three angles of a quadrilateral are equal, fourth angle is a right angle. Then the measure of each angles               |                   |          |                   |          |                  |          |                   |
|             | <b>A</b>  | 50 <sup>0</sup>   | <b>B</b> | 80 <sup>0</sup>   | <b>C</b> | 90 <sup>0</sup>  | <b>D</b> | 70 <sup>0</sup>   |
| <b>Q.8.</b> | The measure of each interior angle of a regular Hexagon   |                   |          |                   |          |                  |          |                   |
|             | <b>A</b>  | 120 <sup>0</sup>  | <b>B</b> | 72 <sup>0</sup>   | <b>C</b> | 90 <sup>0</sup>  | <b>D</b> | 100 <sup>0</sup>  |

|             |   |      |          |      |          |      |          |      |
|-------------|---|------|----------|------|----------|------|----------|------|
| <b>Q.9.</b> | The sum of exterior angles of a pentagon is |      |          |      |          |      |          |      |
|             | <b>A</b>                                    | 540° | <b>B</b> | 360° | <b>C</b> | 720° | <b>D</b> | 180° |

|              |  |      |          |      |          |     |          |     |
|--------------|--|------|----------|------|----------|-----|----------|-----|
| <b>Q.10.</b> | The minimum value of interior angle in a regular polygon |      |          |      |          |     |          |     |
|              | <b>A</b>   | 100° | <b>B</b> | 120° | <b>C</b> | 60° | <b>D</b> | 45° |

**Fill in the blanks(1mark)**

|             |  |
|-------------|--|
| <b>Q11.</b> | The number of diagonals in hexagon-----  |
| <b>Q12.</b> | The maximum exterior angle possible for a regular polygon is -----   |
| <b>Q13.</b> | The measure of each exterior angle of a regular octagon is-----  |
| <b>Q14.</b> | In quadrilateral ABCD, $\angle A = 60^\circ$ , $\angle B = 70^\circ$ , $\angle C = 120^\circ$ , then the measure of $\angle D$ is----- |
| <b>Q15.</b> | Each exterior angle of a regular polygon is $36^\circ$ . Then the measure of interior angle is -----                                   |

**SECTION B (2 marks )**

|             |  |  |
|-------------|--|--|
| <b>Q16.</b> | PQRS is a quadrilateral .Find the values of x and y. |  |
|-------------|--|--|

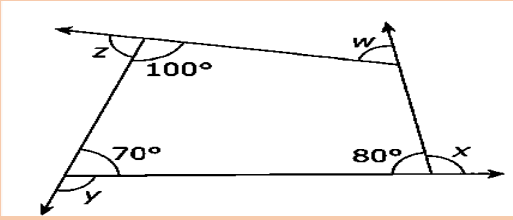
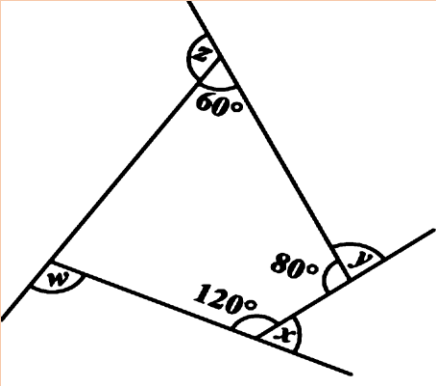
|             |   |
|-------------|---|
| <b>Q17.</b> | The interior angle of a regular polygon is $156^\circ$ . Find the measure exterior angle and the number of sides. |
|-------------|---|

|             |   |
|-------------|---|
| <b>Q18.</b> | If two angles of a quadrilateral are $68^\circ$ and $72^\circ$ and the measure of two angles are equal, then find the angles. |
|-------------|---|

|             |                                   |  |
|-------------|-----------------------------------|--|
| <b>Q19.</b> | From figure, find the value of x. |  |
|-------------|-----------------------------------|--|

|             |  |
|-------------|--|
| <b>Q20.</b> | Find the number of sides of a polygon whose exterior and interior angles are in the ratio 2:7. |
|-------------|--|

**SECTION C (4marks)**

|      |   |
|------|---|
| Q21. |  <p>Find the missing angles.</p>  |
| Q22. | If the angles of a quadrilateral are $4x, 3x + 10^\circ, 2x + 10^\circ$ and $4x + 15^\circ$ , then find value of $x$ and the measure of the angles.             |
| Q23. | Two angles of a quadrilateral are $65^\circ$ and $55^\circ$ . If the measures of other two angles are in the ratio $5:7$ , then find the measure of each angle. |
| Q24. |  <p>Find the values of <math>x, y, z, w</math></p>                             |
| Q25. | The angles of a pentagon are in the ratio $2:3:4:5:6$ . Find the measure of each angle.   |

## Answers

|                |    |   |    |   |    |                        |    |   |
|----------------|----|---|----|---|----|------------------------|----|---|
| <b>Answers</b> | 1  | A   | 2  | B   | 3  | C                      | 4  | A   |
|                | 5  | B   | 6  | B   | 7  | C                      | 8  | A   |
|                | 9  | B   | 10 | C   | 11 | 9                      | 12 | $120^\circ$   |
|                | 13 | $45^\circ$  | 14 | $110^\circ$   | 15 | $144^\circ$            | 16 | $y = 157^\circ$<br>$x = 23^\circ$                               |
|                | 17 | $24^\circ, 15$ sides  | 18 | $110^\circ$   | 19 | $85^\circ$             | 20 | 9 sides   |
|                | 21 | $x = 100^\circ,$<br>$y = 110^\circ$<br>$z = 80^\circ, w = 70^\circ$ | 22 | $x = 25, 100^\circ, 85^\circ,$<br>$60^\circ, 115^\circ$ | 23 | $100^\circ, 140^\circ$ | 24 | $x = 60^\circ, y = 100^\circ,$<br>$z = 120^\circ, w = 80^\circ$ |
|                | 25 | $54^\circ, 81^\circ, 108^\circ,$<br>$135^\circ, 162^\circ$          |    |   |    |                        |    |   |

\*\*\*\*\*