

STD- VIII

Time : $1\frac{1}{2}$ Hours
 Score : 40

Instructions

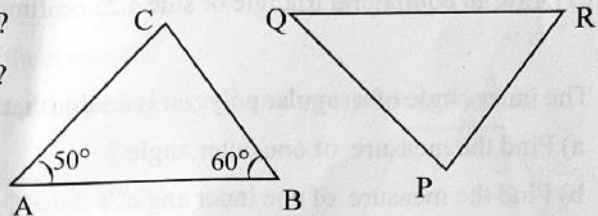
- Read the instructions before answering the questions
- Give explanations wherever necessary
- First 15 minutes time is cool – off time

Answer any 4 Questions from 1 to 6. Each question carries 2 scores. (4 x 2 = 8)

1. In the figure, $AB = QR$, $BC = PR$, $AC = PQ$, $\angle A = 50^\circ$, $\angle B = 60^\circ$

(a) What is the measure of $\angle C$?

(b) What is the measure of $\angle P$?



2. 2 added to three times a number gives 32. What is the number?

3. In a polygon with all angles equal, one inner angle is 144° .

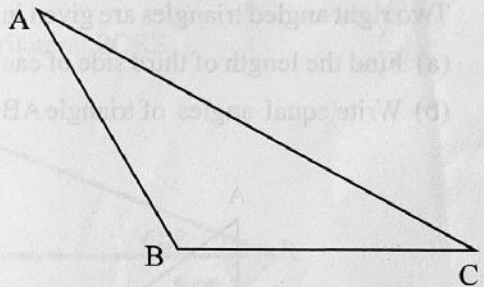
(a) What is the measure of one outer angle?

(b) How many sides does it have?

4. In the figure, $AB = BC$ and $\angle A = 40^\circ$

(a) What is the measure of $\angle C$?

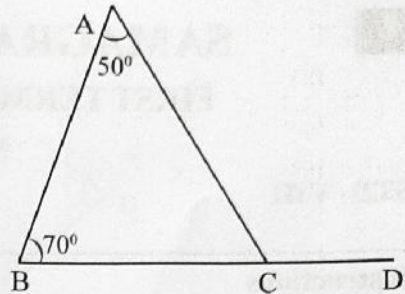
(b) What is the measure of $\angle B$?



5. If $6(x-2) = 3(x+1)$, find 'x'.

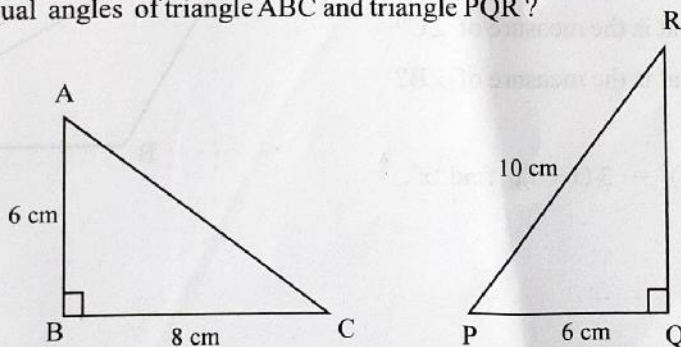
6. In triangle ABC, $\angle A = 50^\circ$, $\angle B = 70^\circ$.

- (a) What is the measure of $\angle ACB$?
- (b) What is the measure of $\angle ACD$?



Answer any 4 Questions from 7 to 12. Each question carries 3 scores. ($4 \times 3 = 12$)

- 7.
 - (a) If x is an odd number, what is the next odd number?
 - (b) Sum of two consecutive odd numbers is 72. What are the numbers?
- 8.
 - a) Draw a line 8.5 centimetres long.
 - b) Draw its perpendicular bisector.
 - c) Draw an equilateral triangle of side 4.25 centimetres long.
- 9. The inner angle of a regular polygon is double that of its outer angle.
 - a) Find the measure of one outer angle?
 - b) Find the measure of one inner angle?
- 10. A hundred rupee note was changed to ten rupee notes and twenty rupee notes, eight notes in all.
 - (a) If we take the number of twenty rupee notes as ' x ', what is the number of ten rupee notes?
 - (b) How many ten rupee notes and twenty rupee notes?
- 11. Two right angled triangles are given in the figure. Lengths of two sides are given.
 - (a) Find the length of third side of each triangle.
 - (b) Write equal angles of triangle ABC and triangle PQR?



12. Consider a polygon having 42 sides.

- What is the sum of the inner angles of this polygon?
- What is the sum of the inner angles of a polygon with one side more?

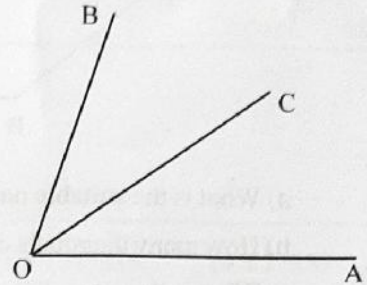
Answer any 5 Questions from 13 to 18. Each question carries 4 scores.

(5 x 4 = 20)

13. In figure, $\angle AOB = 71^\circ$. OC is the bisector of $\angle AOB$.

- What is the measure of $\angle AOC$?
- Draw triangle PQR with $PQ = 6$ centimetres,

$$\angle P = 35\frac{1}{2}^\circ, \angle Q = 60^\circ.$$

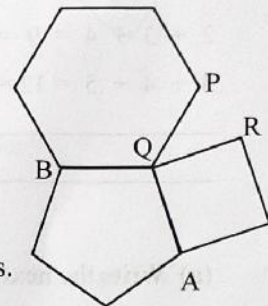


14. Length of a rectangle is 3 metres more than two times the breadth. Perimeter of the rectangle is 36 metres.

- Length + Breadth = _____
- Find the length and breadth of the rectangle.

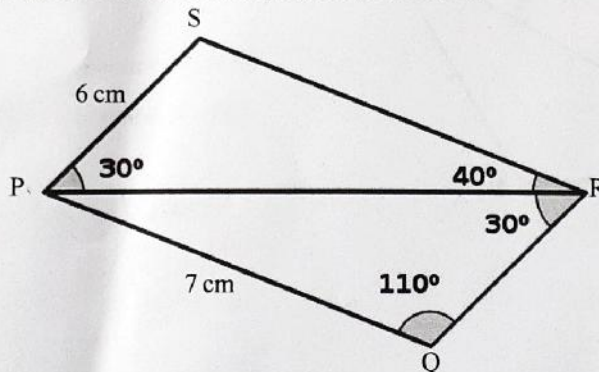
15. In the figure, a regular hexagon, a regular pentagon and a square put together.

- Write the measures $\angle AQR$, $\angle AQB$ and $\angle PQB$,
- Find the measure of $\angle PQR$?

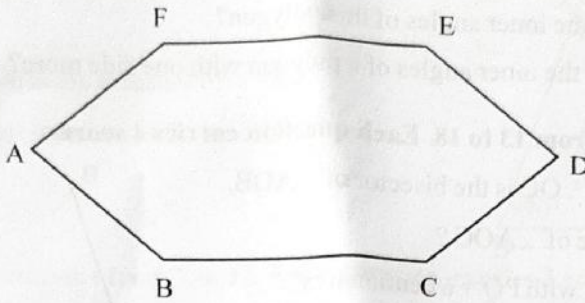


16. In the figure PQRS is a quadrilateral. PR is one of its diagonals.

- Find the measures of $\angle PSR$ and $\angle QPR$.
- Find the perimeter of quadrilateral PQRS.
- Write the most suitable name for the quadrilateral PQRS.



17. ABCDEF is a polygon.



- What is the suitable name for this polygon ?
- How many diagonals can be drawn from any one of the vertices?
- What is the sum of inner angles of this polygon?
- What is the sum of inner angles of a 7 sided polygon?

18 Look at the pattern

$$1 + 2 + 3 = 6 = 3 \times 2$$

$$2 + 3 + 4 = 9 = 3 \times 3$$

$$3 + 4 + 5 = 12 = 3 \times 4$$

- Write the next two lines of this pattern.
- $99 + 100 + 101 = 3 \times \underline{\hspace{2cm}}$
- If the middle number of three consecutive natural numbers is 'x', what is their sum?