

SAMAGRA SHIKSHA, KERALA
SECOND TERM EVALUATION 2022-'23
MATHEMATICS



Standard: X

Time: 2½ hours

Score : 80

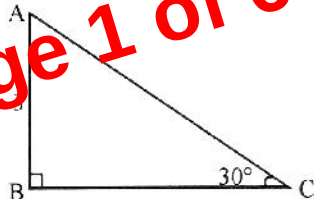
Instructions

- Read the instructions before answering the questions
- Give explanations wherever necessary
- First 15 minutes time is cool – off time
- Simplifications using approximate values of $\sqrt{2}$, $\sqrt{3}$, π need to be done only if specifically asked.

Answer any 3 Questions from 1 to 4. Each question carries 2 scores. (3 × 2 = 6)

1. In the figure, $\angle B = 90^\circ$, $\angle C = 30^\circ$, $AB = 3$ centimetres

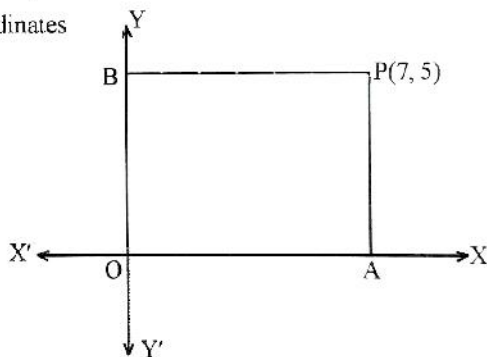
- What is the measure of $\angle A$?
- Find the length of BC .



2. When each side of a square is increased by 1 metre, the area becomes 49 squaremetres. What is the length of one side of the original square?

3. In the figure, OAPB is a rectangle. The coordinates of the point P are (7, 5).

- Write the coordinates of A.
- Write the coordinates of B.



4. PT and PS are tangents of a circle with centre at O. $\angle SPT = 60^\circ$.

- Find the measure of $\angle SOT$
- Find the measure of $\angle POT$

