فصول اونلاين
ONLINE SCHOOL

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Exam for the 1st Secondary 2025 (October Exam)

Choose the correct answer from those given:

(1) If one of the two roots of the equation : $x^2 - (m-3)x + 5 = 0$ is the additive inverse of the other root , then m = ...

(a) – 5 (b) – 3 (c) 3 (d) 5

(2) If $\sin\theta > 0$, $\tan\theta < 0$, then θ lies in the ..... quadrant.

(a) first (b) second (c) third (d) fourth

(3) **In the opposite figure :**

$x + y + z$ = ...

(a) 15 (b) 18.2

(c) 22 (d) 22.2

(4) If the two roots of the equation : $x^2 + 4x + k = 0$ are real , then $k \in$ .....

(a) $[4, \infty[$ (b) $]4, \infty[$ (c) $]-\infty, 4]$ (d) $]-\infty, 4[$

(5) **The angle of measure – 60° in standard position is equivalent to the angle of measure** .....

(a) 60° (b) 120° (c) 300° (d) – 300°

(6) If $(1 + i^8)(1 - i^{11}) = x + y\,i$, then $x + y$ = ...

(a) 4 (b) 3 (c) 2 (d) 1

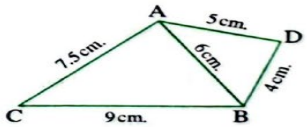
Find the results of the following:

1. **If L , M are the two roots of the equation : $2x^2 + 2x + 3 = 0$, find the equation whose two roots are : $\frac{2}{L}$, $\frac{2}{M}$**

2. If $1 + i$ is one of the two roots of the equation : $x^2 - 2x + c = 0$ where $c \in \mathbb{R}$, find the other root , then find the value of c

3. **If the terminal side of a directed angle whose measure is θ in the standard position intersects the unit circle at the point $(-\frac{\sqrt{3}}{2}, \frac{1}{2})$, find the value of : θ**

4. **In the opposite figure :**



ABC is a triangle in which : AB = 6 cm. , BC = 9 cm. , AC = 7.5 cm. , D is a point outside the triangle ABC where DB = 4 cm. , DA = 5 cm. **Prove that :**

(a) $\Delta ABC \sim \Delta DBA$ (b) $\overrightarrow{BA}$ bisects $\angle DBC$