

Exam for the 1st Secondary 2025 (December Exam)

Choose the correct answer from the given ones:

- The angle with measure -120 in standard position lies in the quadrant.
 (a) first (b) second (c) third (d) fourth
- The measure of the central angle in a circle of radius length 15 cm. and opposite to an arc of length 5π cm. equal
 (a) 30° (b) 60° (c) 90° (d) 180°
- If $\theta \in]0, \frac{\pi}{2}[$, $\cos \theta = \frac{3}{5}$, then $\csc \theta \sin \theta - \tan \theta \csc \theta = \dots\dots\dots$
 (a) 0 (b) 1 (c) $\frac{-3}{2}$ (d) $\frac{-2}{3}$
- If $\tan \theta = \cot 2\theta$, $0^\circ < \theta < 90^\circ$, then $\sin \theta + \cos 2\theta = \dots\dots\dots$
 (a) 1 (b) -1 (c) 2 (d) $\frac{1}{4}$
- The range of the function $f : f(x) = 4 \sin 2x$ where $x \in [0, 2\pi]$ is
 (a) $]-2, 2[$ (b) $[-2, 2]$ (c) $]-4, 4[$ (d) $[-4, 4]$
- $\cos(270 - \theta) + \sin(180 - \theta) = \dots\dots\dots$
 (a) $2 \sin \theta$ (b) $2 \cos \theta$ (c) 0 (d) 1
- The directed angle in standard position which has terminal side intersects the unit circle at the point (a, b) where $a > 0$ and $b < 0$, then its lies in the quadrant.
 (a) first (b) second (c) third (d) fourth
- If $14\theta = \pi$, then the numerical value of $\frac{\cos 3\theta}{\sin 4\theta} + \frac{\tan \theta}{\cot 6\theta} + \frac{\cos 5\theta}{\cos 9\theta} = \dots\dots\dots$
 (a) -3 (b) 0 (c) 1 (d) 3
- If $\tan 25^\circ = k$, then $\frac{\cot 205^\circ + \cot 295^\circ}{1 + \tan 335^\circ} = \dots\dots\dots$
 (a) $\frac{1}{k} - 1$ (b) $1 + \frac{1}{k}$ (c) $1 - k^2$ (d) $k^2 - k$

10. The measure of the central angle which drawn in a circle its radius 10 cm.
and subtended arc of length $2\pi = \dots\dots\dots^\circ$

(a) 30

(b) 36

(c) 45

(d) 60

