Year 11 Mathematics Advanced

Topic: Trigonometry and Measure of Angles (5 of 5)
Review Questions: Mixed one-off exam questions
Term 3, 2026

How to use this set

These are real past-paper questions on Trigonometry and Measure of Angles that do not fit any one recurring pattern: genuine one-offs. They are here so you also meet the rarer, less predictable exam questions. Work through them once you are solid on the patterns in the main review docs. Every question you get wrong or struggle with goes in your **Mistakes Log**.

Mixed one-off exam questions

Q1 Sydney Grammar 2021 Prelim Q7 · **1 mark**

Given the functions $y = \tan x$ and $y = -\cos x$, which of the following is a true statement?

(A) Both functions are even.

(B) Both functions are odd.

(C) $y = \tan x$ is even and $y = -\cos x$ is odd.

(D) $y = \tan x$ is odd and $y = -\cos x$ is even.

Q2 Killara 2023 Prelim Q8 · **1 mark**

If $A + B = 180°$, which of the following statements is true?

I. $\sin A = \sin B$ II. $\cos A = \cos B$ III. $\tan A = \tan B$

(A) I only

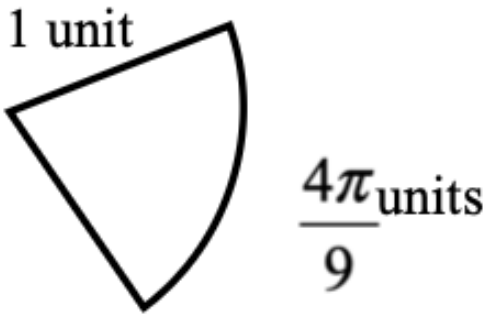
(B) II only

(C) III only

(D) None of them

Q3 Hurlstone 2022 Prelim Q10 · **1 mark**

An arc on the unit circle has length $\frac{4\pi}{9}$ units. What is the size of the angle subtended at the centre of the unit circle by this arc, in degrees?



(A) 80°

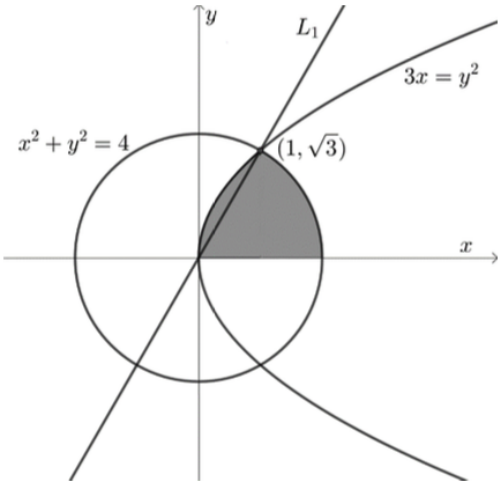
(B) 40°

(C) 20°

(D) 10°

Q4 Barker 2024 Trial Q31 · **1 mark**

A line L_1 passes through the origin $(0, 0)$ and the point $\left(1, \sqrt{3}\right)$. Find the acute angle of inclination of the line L_1 with the x-axis.



Q5 Fort St 2020 Trial Q6 · **1 mark**

At what angle is the line $y = -\sqrt{3}\,x$ inclined to the positive side of the x-axis?

(A) 30°

(B) 60°

(C) 120°

(D) 150°