

Name _____

Date _____

Trigonometric Functions: your summary

vertexmath.ca
Worksheet, answers &
this cheat sheet



1 Fill in every blank from memory. No notes.

2 Check it against the Unit Summary in a different colour.

3 Tick ✓ or X on each card. Every X is a topic to review.

Which period?

Write the tool for each case.

$y = \cos(4x)$

$y = \tan(4x)$

high tide to high tide

1 Radians and exact values

☒ ☐

1 Convert 150° to radians and $7\pi/9$ to degrees.

2 Exact value of $\cos(4\pi/3)$.

2 Graphs of sin, cos, tan

☒ ☐

3 On $[0, 2\pi]$, give the asymptotes and zeros of $y = \tan x$.

3 Transformations

☒ ☐

4 Amplitude, period, phase shift and midline of $y = 4 \cos(3x + \pi) - 1$.

4 Modelling

☒ ☐

5 Temperature peaks at 25°C on day 200, minimum -5°C , period 365 days. Write a model.

5 Reciprocal functions

☒ ☐

6 Asymptotes of $y = \sec(2x)$ on $[0, \pi]$.

6 Solving equations

☒ ☐

7 Solve $2 \sin x - \sqrt{2} = 0$ for $0 \leq x \leq 2\pi$.

7 Rates of change

☒ ☐

8 Average rate of change of $y = \cos x$ from 0 to π .

My traps Your three most likely mistakes, and how you will catch each one.

1 _____ 2 _____ 3 _____

Answers to the numbered prompts. Cover this strip until you are done.
1 $5\pi/6, 140^\circ$
2 $-1/2$
3 Asymptotes $x = \pi/2, 3\pi/2$; zeros $0, \pi, 2\pi$
4 $4; 2\pi/3; \pi/3$ left; $y = -1$
5 $T = 15 \cos[2\pi/365(t - 200)] + 10$
6 $x = \pi/4, 3\pi/4$
7 $x = \pi/4, 3\pi/4$
8 $(-1 - 1)/\pi = -2/\pi$