Task card 1 Trigonometric Identities

Simplify: $\tan x / \sec x$

Task card 2 Trigonometric Identities

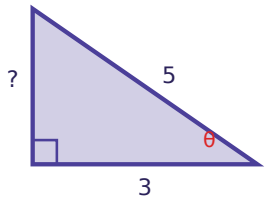
Simplify: $\sec^2 x \cdot \cos^2 x - \sin^2 x$

Task card 3 Trigonometric Identities

Simplify: $(\csc^2 x - 1) \cdot \tan^2 x$

Task card 4 Trigonometric Identities

$\cos \theta = \frac{3}{5}$ and θ is in quadrant I. Find the exact value of $\tan \theta$.



Task card 5 Trigonometric Identities

Simplify: $\tan^2 x \cdot \cos^2 x$

Task card 6 Trigonometric Identities

Simplify:

$$\frac{1}{1 + \cot^2 x}$$

Task card 7 Trigonometric Identities

Simplify: $\sin x \cdot \cos x \cdot \sec x \cdot \csc x$

Task card 8 Trigonometric Identities

$\sin \theta = -\frac{7}{25}$ and θ is in quadrant IV. Find the exact value of $\cos \theta$.

Task card 9 Trigonometric Identities

Simplify:

$$\frac{1}{1 + \tan^2 x}$$

Task card 10 Trigonometric Identities

$\sin \theta = -\frac{5}{13}$ and θ is in quadrant IV. Find the exact value of $\tan \theta$.

Task card 11 Trigonometric Identities

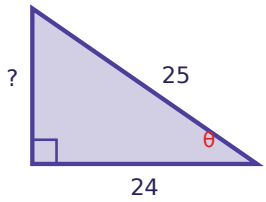
Simplify: $\cot x / \csc x$

Task card 12 Trigonometric Identities

Simplify: $(\sec^2 x - 1) \cdot \cot x$

Task card 13 Trigonometric Identities

$\cos\theta = \frac{24}{25}$ and θ is in quadrant I. Find the exact value of sin θ.



Task card 14 Trigonometric Identities

Simplify: $\cos^2 x \cdot \sec x$

Task card 15 Trigonometric Identities

Simplify: $\cos x / \cot x$

Task card 16 Trigonometric Identities

Simplify: $(1 - \sin^2 x) / \cos x$

Task card 17 Trigonometric Identities

$\cos\theta = \frac{4}{-5}$ and θ is in quadrant II. Find the exact value of sin θ.

Task card 18 Trigonometric Identities

Simplify: $(\sin x + \cos x)^2 - 2\sin x \cos x$

Task card 19 Trigonometric Identities

$\sin \theta = -\frac{3}{5}$ and θ is in quadrant III. Find the exact value of $\tan \theta$.

Task card 20 Trigonometric Identities

Simplify: $\sin^2 x \cdot \csc x$

Task card 21 Trigonometric Identities

$\cos \theta = -\frac{3}{5}$ and θ is in quadrant III. Find the exact value of $\tan \theta$.

Task card 22 Trigonometric Identities

Simplify: $(1 + \tan^2 x) \cdot \cos^2 x$

Task card 23 Trigonometric Identities

$\cos \theta = -\frac{8}{17}$ and θ is in quadrant II. Find the exact value of $\sin \theta$.

Task card 24 Trigonometric Identities

Simplify: $\cot^2 x \cdot \sin^2 x$

Trigonometric Identities Task Cards

Recording sheet · Grade 12 · Simplify each expression to a single term such as 1, sin x, cos^2 x or -sin^2 x, or find the exact value asked for.

Name: _____ Date: _____

Scan to check your answers

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Trigonometric Identities Task Cards: Answer Key

Grade 12 · Hard

The answers online

1. $\sin x$	**2.** $\cos^2 x$	**3.** 1
4. $\frac{4}{3}$	**5.** $\sin^2 x$	**6.** $\sin^2 x$
7. 1	**8.** $\frac{24}{25}$	**9.** $\cos^2 x$
10. $\frac{5}{-12}$	**11.** $\cos x$	**12.** $\tan x$
13. $\frac{7}{25}$	**14.** $\cos x$	**15.** $\sin x$
16. $\cos x$	**17.** $\frac{3}{5}$	**18.** 1
19. $\frac{3}{4}$	**20.** $\sin x$	**21.** $\frac{4}{3}$
22. 1	**23.** $\frac{15}{17}$	**24.** $\cos^2 x$