

Name : _____

Solve - Cofunction Identities

Degrees: S1

Solve using cofunction identities.

1) $\sin \frac{9x}{2} = \cos \left(15^\circ + \frac{x}{2}\right)$

2) $\cot (6x - 13^\circ) = \tan (3x + 22^\circ)$

3) $\csc (x + 20^\circ) = \sec 25^\circ$

4) $\tan 4x = \cot 26^\circ$

5) $\sec (3x + 8^\circ) = \csc (22^\circ + 7x)$

6) $\cos \frac{x}{3} = \sin 70^\circ$

7) $\tan 7x = \cot (21x + 6^\circ)$

8) $\sec (10x - 35^\circ) = \csc 15x$

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Answer key

Solve - Cofunction Identities

Degrees: S1

Solve using cofunction identities.

1) $\sin \frac{9x}{2} = \cos \left(15^\circ + \frac{x}{2}\right)$

$x = 15^\circ$

2) $\cot (6x - 13^\circ) = \tan (3x + 22^\circ)$

$x = 9^\circ$

3) $\csc (x + 20^\circ) = \sec 25^\circ$

$x = 45^\circ$

4) $\tan 4x = \cot 26^\circ$

$x = 16^\circ$

5) $\sec (3x + 8^\circ) = \csc (22^\circ + 7x)$

$x = 6^\circ$

6) $\cos \frac{x}{3} = \sin 70^\circ$

$x = 60^\circ$

7) $\tan 7x = \cot (21x + 6^\circ)$

$x = 3^\circ$

8) $\sec (10x - 35^\circ) = \csc 15x$

$x = 5^\circ$