

Accel Precalc Practice Worksheet #1: Sum and Difference Formulas  
Unit #7: Trig Identities and Equations for Sine, Cosine, and Tangent

Name \_\_\_\_\_

Write the expression as the sine, cosine, or tangent of an angle.

1.  $\cos 25^\circ \cos 15^\circ - \sin 25^\circ \sin 15^\circ$  \_\_\_\_\_
2.  $\sin 140^\circ \cos 50^\circ + \cos 140^\circ \sin 50^\circ$  \_\_\_\_\_
3.  $\frac{\tan 325^\circ - \tan 86^\circ}{1 + \tan 325^\circ \tan 86^\circ}$  \_\_\_\_\_
4.  $\frac{\tan 140^\circ - \tan 60^\circ}{1 + \tan 140^\circ \tan 60^\circ}$  \_\_\_\_\_
5.  $\sin 3 \cos 1.2 - \cos 3 \sin 1.2$  \_\_\_\_\_
6.  $\cos \pi/7 \cos \pi/5 - \sin \pi/7 \sin \pi/5$  \_\_\_\_\_
7.  $\frac{\tan 2x + \tan x}{1 - \tan 2x \tan x}$  \_\_\_\_\_
8.  $\cos 3x \cos 2y + \sin 3x \sin 2y$  \_\_\_\_\_

Find the exact value of each expression.

9.  $\sin 330^\circ \cos 30^\circ - \cos 330^\circ \sin 30^\circ$  \_\_\_\_\_
10.  $\cos 15^\circ \cos 60^\circ + \sin 15^\circ \sin 60^\circ$  \_\_\_\_\_
11.  $\sin \pi/12 \cos \pi/4 + \cos \pi/12 \sin \pi/4$  \_\_\_\_\_
12.  $\cos \pi/16 \cos 3\pi/16 - \sin \pi/16 \sin 3\pi/16$  \_\_\_\_\_
13.  $\frac{\tan 25^\circ + \tan 110^\circ}{1 - \tan 25^\circ \tan 110^\circ}$  \_\_\_\_\_
14.  $\frac{\tan(5\pi/4) - \tan(\pi/12)}{1 + \tan(5\pi/4) \tan(\pi/12)}$  \_\_\_\_\_

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14.  $\frac{\tan(5\pi/4) - \tan(\pi/12)}{1 + \tan(5\pi/4) \tan(\pi/12)}$  \_\_\_\_\_