PreCalculus   Name: Period: Date:

Warm Up 2/26

Lesson 7-2: Trigonometric Addition and Subtraction Formulas

Objectives
Students will…
- Be able to know the addition and subtraction formulas for sine, cosine, and tangent.
- Be able to use addition and subtraction formulas to evaluate trig functions and to prove or verify identities.

Trigonometric Identities

Try to fill these in from memory as much as possible!
$\csc x =$ $\sec x =$ $\cot x =$ $\tan x =$ $\cot x =$

Pythagorean Identity:
From this, we also get: and   and

                    and   and

Addition and Subtraction Formulas
Formulas for Sine:

Formulas for Cosine:

Formulas for Tangent:

Using Addition and Subtraction Formulas

Find the **exact** value of each expression.
a) $\cos 75°$ b) $\cos \frac{\pi}{12}$ c) $\cos 15°$

Example

Find the exact value of the expression:
$\sin 20° \cos 40° + \cos 20° \sin 40°$

Find the exact value of the expression:
$\sin 10° \cos 50° + \cos 10° \sin 50°$

Homework 2/26
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