

PreCalculus
WS: 5.4 Extra Practice

Name _____
Date _____ **Block** _____

1. Find the exact value of $\cos \frac{\pi}{16} \cos \frac{3\pi}{16} - \sin \frac{\pi}{16} \sin \frac{3\pi}{16}$

2. Find the exact value of sine, cosine, and tangent of the angle by using the sum or difference formulas. $\frac{17\pi}{12}$ Hint: $\frac{17\pi}{12} = \frac{9\pi}{4} - \frac{5\pi}{6}$

Find the exact value of the trigonometric function given that $\sin u = -\frac{7}{25}$ and $\cos v = -\frac{4}{5}$. (Both are in Quadrant III.)

3. $\cos(u + v)$

4. $\tan(u - v)$

Write the trigonometric expression as an algebraic expression.

5. $\cos(\arccos x - \arcsin x)$

6. Find all solutions of the equation in the interval $[0, 2\pi)$. $\sin\left(x + \frac{\pi}{6}\right) - \sin\left(x - \frac{\pi}{6}\right) = \frac{1}{2}$

In 7 - 8, verify the identity.

7. $\sin(3\pi - x) = \sin x$

8. $\cos(x + y) + \cos(x - y) = 2 \cos x \cos y$