

Review Quiz Sum & Difference

Use the angle sum identity to find the exact value of each.

1) $\sin 75^\circ$

2) $\cos \frac{17\pi}{12}$

3) $\sin \frac{13\pi}{12}$

Use the angle difference identity to find the exact value of each.

4) $\cos(-75^\circ)$

5) $\cos \frac{5\pi}{12}$

6) $\tan\left(-\frac{7\pi}{12}\right)$

Use the angle sum or difference identity to find the exact value of each.

7) $\cos 195^\circ$

8) $\cos\left(-\frac{\pi}{12}\right)$

9) $\sin(-15^\circ)$

10) $\sin \frac{5\pi}{12}$

11) $\tan\left(-\frac{5\pi}{12}\right)$

12) $\cos \frac{7\pi}{12}$

13) Find the exact value of the trigonometric function given the following information:

$$\tan u = 4/3; \pi < u < 3\pi/2 \text{ and } \sin v = 7/25; \pi/2 < v < \pi$$

a) $\sin(u-v)$

b) $\cos(u-v)$

c) $\tan(u+v)$

Answers to Review Quiz Sum & Difference

$$1) \frac{\sqrt{6} + \sqrt{2}}{4}$$

$$5) \frac{\sqrt{6} - \sqrt{2}}{4}$$

$$9) \frac{\sqrt{2} - \sqrt{6}}{4}$$

$$13) \text{ a) } \frac{117}{125} \quad \text{b) } \frac{44}{125} \quad \text{c) } \frac{3}{4}$$

$$2) \frac{\sqrt{2} - \sqrt{6}}{4}$$

$$6) 2 + \sqrt{3}$$

$$10) \frac{\sqrt{6} + \sqrt{2}}{4}$$

$$3) \frac{\sqrt{2} - \sqrt{6}}{4}$$

$$7) \frac{-\sqrt{6} - \sqrt{2}}{4}$$

$$11) -2 - \sqrt{3}$$

$$4) \frac{\sqrt{6} - \sqrt{2}}{4}$$

$$8) \frac{\sqrt{6} + \sqrt{2}}{4}$$

$$12) \frac{\sqrt{2} - \sqrt{6}}{4}$$