

Using Sum and Difference Formulas to Find Exact Values Practice Problems

Find the exact value of each.

1. $\cos(105^\circ)$

2. $\sin(15^\circ)$

3. $\sin(195^\circ)$

4. $\sin(15^\circ)$

5. $\sin(140^\circ) \cos(50^\circ) - \cos(140^\circ) \sin(50^\circ)$

6. $\sin(42^\circ) \cos(12^\circ) - \cos(42^\circ) \sin(12^\circ)$

7. $\cos(35^\circ) \cos(100^\circ) - \sin(35^\circ) \sin(100^\circ)$

8. $\cos(220^\circ) \cos(10^\circ) + \sin(220^\circ) \sin(10^\circ)$

Find the exact values of the trig functions below given that $\sin u = \frac{3}{4}$ and $\cos v = -\frac{5}{13}$. Both u and v are in quadrant II.

1. $\sin(u + v)$

10. $\cos(u - v)$

Using Sum and Difference Formulas to Find Exact Values Practice Problems Answer Key

1. $\frac{\sqrt{2}-\sqrt{6}}{4}$

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

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

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

5. $\sin(90^\circ) = 1$

6. $\sin(30^\circ) = \frac{1}{2}$

7. $\cos(135^\circ) = \frac{-\sqrt{2}}{2}$

8. $\cos(210^\circ) = \frac{-\sqrt{3}}{2}$

9. $\frac{-15-4\sqrt{7}}{52}$

10. $\frac{5\sqrt{7}+36}{52}$