Chapter 5 Review Math Analysis

Row # ____
Name ____

Solve for values of θ between $0°$ and $90°$:

1. If $\sin\theta = \frac{1}{2}$, find $\cos\theta$
2. If $\csc\theta = \frac{5}{3}$, find $\cos\theta$
3. If $\sec\theta = 3$, find $\tan\theta$
4. If $\sin\theta = \frac{4}{5}$, find $\sec\theta$

Verify:

5. $\tan\theta(\cot\theta + \tan\theta) = \sec^2\theta$
6. $\sin^2 A \cot^2 A = (1 - \sin A)(1 + \sin A)$
7. $\frac{\sec x}{\sin x} - \frac{\sin x}{\cos x} = \cot x$
8. $\frac{\cos x}{1 + \sin x} + \frac{\cos x}{1 - \sin x} = 2\sec x$

Use the sum and difference identities to find the exact value of each functio

9. $\sin 255°$
10. $\cos 165°$
11. $\sin(-195°)$

If $\cos x = \frac{3}{4}$ and x is in 4th Quadrant, find each value.

12. $\sin 2x$
13. $\cos\frac{x}{2}$
14. $\tan 2x$

Solve each equation for $0° \le x \le 180°$

15. $\sin x - \cos x = 0$
16. $2\cos^2 x + 3\sin x - 3 = 0$
17. $\tan^2 x - \sqrt{3}\tan x = 0$
18. $\tan 2x \cot x - 3 = 0$

Find the distance from the point with the given coordinates to the line with the given equation. Round answers to the nearest tenth.

19. $(-5, 8)$ $2x + y - 6 = 0$
20. $(-6, 8)$ $-3x - 4y = 2$