MATH IV – Chapter 5.3 Practice Exam

Solve each trigonometric equation for all solutions on $[0, 2\pi]$.

1. $5 = \sec^2 x + 3$

2. $9 + \sin^2 x = 10$

3. $\cos x - 4 = \sin x - 4$

4. $2 - 2\cos^2 x = \sin x + 1$

5. $\cot^2 x \csc^2 x - \cot^2 x = 9$

Pythagorean Identities

$$\sin^2 x + \cos^2 x = 1$$
$$1 + \cot^2 x = \csc^2 x$$
$$\tan^2 x + 1 = \sec^2 x$$

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