Lesson 6.5 Practice: Equations Using Factoring, Identities and Multiple Angles

School Launch · Trigonometry · Unit 6: Inverse Functions and Trigonometric Equations · Worksheet A

Scientific calculator

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Solve on $[0, 2\pi)$: $\sin^{2}\left(x\right) - \sin\left(x\right) = 0$. EASY

2. Solve on $[0, 2\pi)$: $\tan^{2}\left(x\right) - 3 = 0$. EASY

3. Solve on $[0, 2\pi)$: $\cos^{2}\left(x\right) - \cos\left(x\right) = 0$. EASY

4. Solve on $[0, 2\pi)$: $2\cos^{2}\left(x\right) + \cos\left(x\right) - 1 = 0$. MEDIUM

5. Solve on $[0, 2\pi)$: $2\cos^{2}\left(x\right) - 1 = 0$. MEDIUM

6. Solve on $[0, 2\pi)$: $4\cos^{2}\left(x\right) - 3 = 0$. MEDIUM

7. Solve on $[0, 2\pi)$: $2\cos^{2}\left(x\right) - 3\cos\left(x\right) + 1 = 0$. MEDIUM

8. Solve on $[0, 2\pi)$: $\tan^{2}\left(x\right) - 1 = 0$. HARD

9. Solve on $[0, 2\pi)$: $2\sin^{2}\left(x\right) + \sin\left(x\right) = 0$. HARD

10. Solve on $[0, 2\pi)$: $2\sin^{2}\left(x\right) - 1 = 0$. HARD