Lesson 6.2 Practice: Inverse Cosine and Inverse Tangent

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. Find the exact value in radians: $\cos^{-1}\left(-\frac{1}{2}\right)$. EASY

2. Find the exact value in radians: $\cos^{-1}(0)$. EASY

3. Find the exact value in radians: $\cos^{-1}\left(\frac{\sqrt{2}}{2}\right)$. EASY

4. Find the exact value in radians: $\cos^{-1}(1)$. MEDIUM

5. Find the exact value in radians: $\tan^{-1}\left(-\sqrt{3}\right)$.

MEDIUM

6. Find the exact value in radians: $\cos^{-1}\left(-\frac{\sqrt{3}}{2}\right)$.

MEDIUM

7. Find the exact value in radians: $\tan^{-1}\left(-\frac{\sqrt{3}}{3}\right)$.

MEDIUM

8. Find the exact value in radians: $\cos^{-1}\left(\cos\left(-\frac{\pi}{6}\right)\right)$.

HARD

9. Find the exact value in radians: $\cos^{-1}\left(\cos\left(-\frac{\pi}{4}\right)\right)$.

HARD

10. Find the exact value in radians: $\cos^{-1}\left(\cos\left(\frac{4\pi}{3}\right)\right)$.

HARD