Lesson 6.1 Practice: Inverse Sine and Restricted Domains

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: $\sin^{-1}\left(\frac{\sqrt{3}}{2}\right)$. EASY

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

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

4. Find the exact value in radians: $\sin^{-1}(0)$. MEDIUM

5. Find the exact value in radians: $\sin^{-1}\left(\sin\frac{\pi}{5}\right)$.

MEDIUM

6. Find the exact value in radians: $\sin^{-1}\left(\sin-\frac{\pi}{7}\right)$.

MEDIUM

7. Find the exact value in radians: $\sin^{-1}\left(\sin-\frac{2\pi}{5}\right)$.

MEDIUM

8. Find the exact value in radians: $\sin^{-1}\left(\sin\frac{7\pi}{6}\right)$. HARD

9. Find the exact value in radians: $\sin^{-1}\left(\sin\frac{7\pi}{4}\right)$. HARD

10. Find the exact value in radians: $\sin^{-1}\left(\sin\frac{5\pi}{4}\right)$.

HARD