Name: _____
Date: _____

: Inverse Trigonometric Functions

Honors Pre-Calculus

Find the exact value of each expression without using a calculator.

1. $\arcsin\left(\frac{-\sqrt{2}}{2}\right)$
2. $\arcsin(-1)$
3. $\arccos 1$
4. $\arctan(-\sqrt{3})$
5. $\arctan(-1)$
6. $\cos^{-1}\frac{-\sqrt{2}}{2}$
7. $\sin^{-1}\left(\frac{\sqrt{2}}{2}\right)$
8. $\arctan(\sqrt{3})$
9. $\arctan\left(\frac{\sqrt{3}}{3}\right)$
10. $\sin^{-1}\left(-\frac{\sqrt{3}}{2}\right)$
11. $\tan^{-1}\left(\frac{-\sqrt{3}}{3}\right)$
12. $\cos(\arccos\frac{-\sqrt{2}}{2})$
13. $\sin[\cos^{-1}(½)]$
14. $\tan[\sin^{-1}(1)]$
15. $\sin[\tan^{-1}\left(\frac{-\sqrt{3}}{3}\right)]$
16. $\cos[\sin^{-1}(-\frac{1}{2})]$

Make a sketch of a right triangle to find the exact value of the expression.

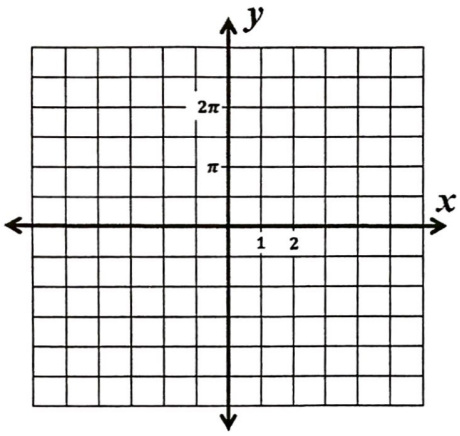
17. sin(arctan 8/6)
18. sec(arcsin 3/5)
19. cos(arcsin 48/50)
20. csc[arctan(-7/24)]
21. sin[arccos(-13/18)]
22. cot(arctan 22/17)

Practice – Inverse Trig Functions Name: _____

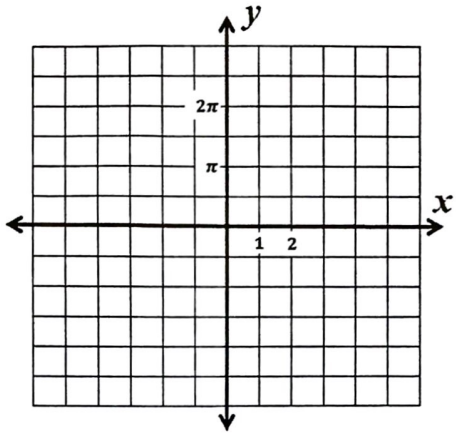
Pre-Calculus

For 1-9, graph the function.

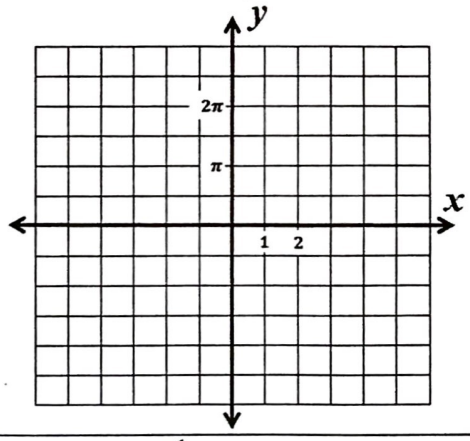
1) $y = 2\sin^{-1} x$



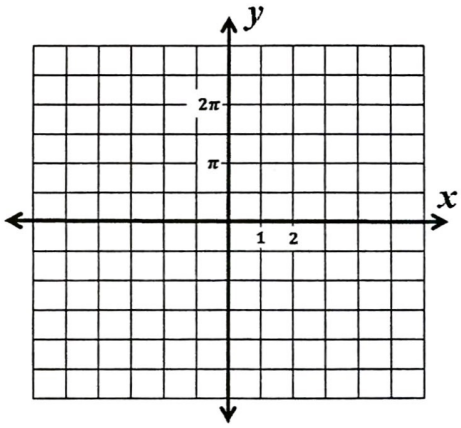
2) $y = \cos^{-1}(x+3)$



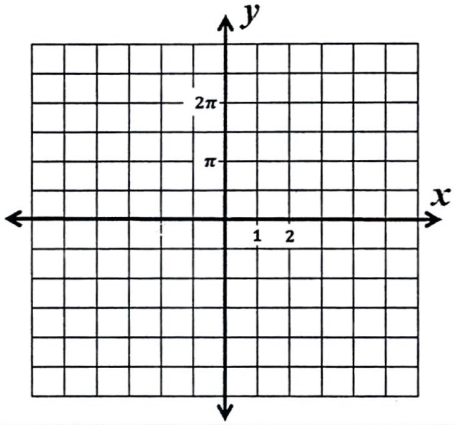
3) $y = \tan^{-1} x - \frac{3\pi}{2}$



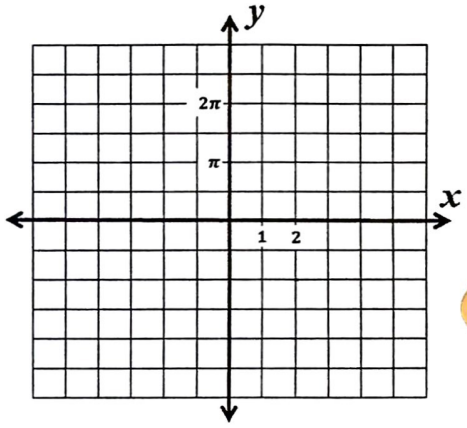
4) $y = \sin^{-1} x - \pi$



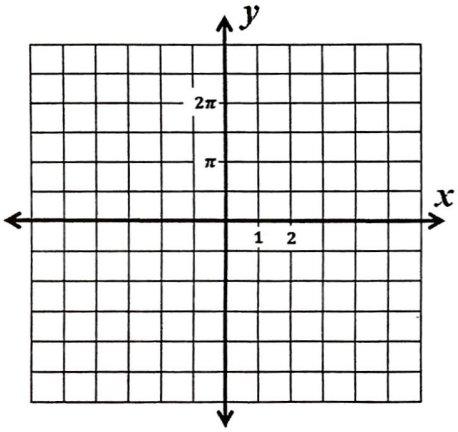
5) $y = \cos^{-1}\frac{x}{2}$



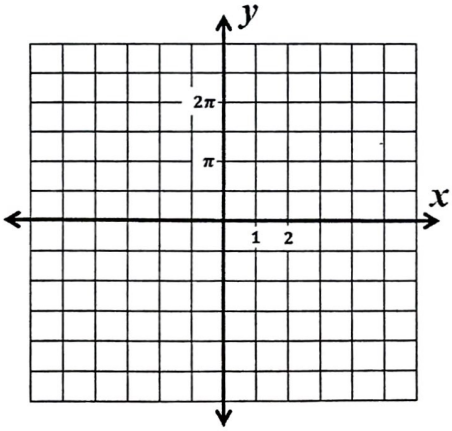
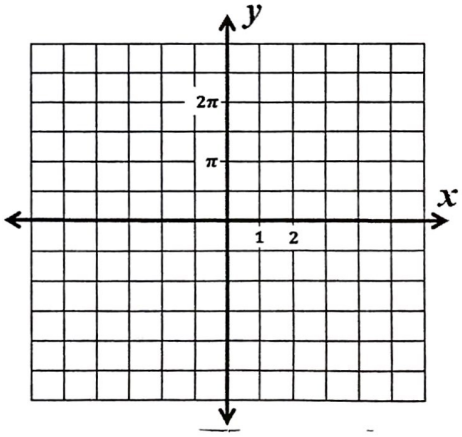
6) $y = 3\tan^{-1} x + \pi$



7) $y = 2\cos^{-1} x - 2\pi$



8) $y = 2\tan^{-1} x$



9) $y = 3\sin^{-1}(x-2) + \frac{\pi}{2}$