

Mad Math Minute!

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Answer choices for  $\sin(\sin^{-1}(x))$ :  $x$  or undefined

Answer choices for  $\sin^{-1}(\sin(x))$ :  $x$  or "the other angle" or "undefined"

1. $\sin\left(\sin^{-1}\left(\frac{1}{3}\right)\right)$	2. $\sin\left(\sin^{-1}(2.3)\right)$	3. $\tan\left(\tan^{-1}\left(\frac{1}{2}\right)\right)$
4. $\cos\left(\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)\right)$	5. $\tan\left(\tan^{-1}(-1)\right)$	6. $\cos\left(\cos^{-1}(3)\right)$
7. $\sin\left(\sin^{-1}(-1)\right)$	8. $\cos\left(\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)\right)$	9. $\tan\left(\tan^{-1}(5)\right)$
10. $\sin^{-1}\left(\sin\left(\frac{2\pi}{3}\right)\right)$	11. $\cos^{-1}\left(\cos\left(\frac{3\pi}{4}\right)\right)$	12. $\tan^{-1}\left(\tan\left(-\frac{\pi}{3}\right)\right)$
13. $\tan^{-1}\left(\tan\left(\frac{\pi}{2}\right)\right)$	14. $\sin^{-1}\left(\sin(0)\right)$	15. $\cos^{-1}\left(\cos\left(-\frac{\pi}{4}\right)\right)$
16. $\sin^{-1}\left(\sin\left(-\frac{\pi}{3}\right)\right)$	17. $\tan^{-1}\left(\tan\left(\frac{5\pi}{6}\right)\right)$	18. $\cos^{-1}\left(\cos\left(\frac{11\pi}{12}\right)\right)$