

Name: _____

8.7 Compositions of Functions

Rewrite as an algebraic expression

1. $\cos(\sin^{-1} x)$

2. $\sin(\tan^{-1} x)$

3. $\sin\left(\arctan \frac{1}{x}\right)$

4. $\csc(\tan^{-1} 3x)$

5. $\tan(\sec^{-1} 2x)$

6. $\cos\left(\arcsin \frac{x}{\sqrt{3}}\right)$

Find the exact value of the expression, if it's defined

7. $\sec\left(\sin^{-1} \frac{4}{5}\right)$

8. $\cos^{-1}(\sin \pi)$

9. $\sin^{-1}\left(\tan \frac{3\pi}{4}\right)$

10. $\cos^{-1}\left(\sin \frac{8\pi}{3}\right)$

11. $\tan\left(\cos^{-1} \frac{25}{7}\right)$

12. $\tan\left(\sec^{-1} \frac{13}{5}\right)$

13. $\arcsin\left(\cos \frac{7\pi}{6}\right)$

14. $\sin^{-1}\left(\cos \frac{-5\pi}{4}\right)$