

1. Find each exact value without using a calculator.

$$\sin^{-1}\left(-\frac{\sqrt{2}}{2}\right) =$$

$$\cos^{-1} 1 =$$

$$\tan^{-1}(-1) =$$

$$\tan^{-1}\frac{\sqrt{3}}{3} =$$

$$\csc^{-1}\sqrt{2} =$$

$$\cot^{-1}(-\sqrt{3}) =$$

2. Evaluate the following expression without using a calculator.

$$\sin\left(\tan^{-1}\frac{3}{2}\right)$$

3. Rewrite the expression as an algebraic expression in x .

$$\tan(\cos^{-1} x)$$

4. Write $\cos(2 \sin^{-1} x)$ as an algebraic expression in x .

5. Use a calculator to give $\arcsin 0.81926439$ as a real number value. (Be sure the calculator is in radians mode).

Q: A man leaves home and, after making three left turns, he ends up back at home, and finds two masked men waiting for him. What is happening?