

# Trigonometric Expressions

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

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

Evaluate the following trigonometric expressions.

1)  $\sin^{-1}(\cos(\frac{\pi}{4}))$

\_\_\_\_\_

2)  $\sin^{-1}(\frac{4}{5}\cos(\frac{11\pi}{2}))$

\_\_\_\_\_

3)  $\cos^{-1}(\tan(\frac{5\pi}{4}))$

\_\_\_\_\_

4)  $\cot^{-1}(\frac{2}{\sqrt{3}}\sin(\frac{5\pi}{6}))$

\_\_\_\_\_

5)  $\sin^{-1}(\frac{3}{2\sqrt{3}}\cot(\frac{3\pi}{4}))$

\_\_\_\_\_

6)  $\sin^{-1}(\tan(\frac{-9\pi}{4}))$

\_\_\_\_\_

7)  $\sin^{-1}(\frac{1}{2}\cos(\pi))$

\_\_\_\_\_

8)  $\tan^{-1}(\cos(\frac{\pi}{2}))$

\_\_\_\_\_

9)  $\operatorname{cosec}^{-1}(\cos(\frac{4\pi}{2}))$

\_\_\_\_\_

10)  $\cot^{-1}(2\sin(\frac{-6\pi}{9}))$

\_\_\_\_\_

11)  $\sec^{-1}(-\sin(\frac{4\pi}{6}))$

\_\_\_\_\_

12)  $\cot^{-1}(-\sin(\frac{3\pi}{6}))$

\_\_\_\_\_

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1)  $\sin^{-1}(\cos(\frac{\pi}{4}))$

$$\frac{\pi}{4}$$

2)  $\sin^{-1}(\frac{4}{5}\cos(\frac{11\pi}{2}))$

$$0$$

3)  $\cos^{-1}(\tan(\frac{5\pi}{4}))$

$$0$$

4)  $\cot^{-1}(\frac{2}{\sqrt{3}}\sin(\frac{5\pi}{6}))$

$$\frac{\pi}{3}$$

5)  $\sin^{-1}(\frac{3}{2\sqrt{3}}\cot(\frac{3\pi}{4}))$

$$-\frac{\pi}{3}$$

6)  $\sin^{-1}(\tan(\frac{-9\pi}{4}))$

$$-\frac{\pi}{2}$$

7)  $\sin^{-1}(\frac{1}{2}\cos(\pi))$

$$-\frac{\pi}{6}$$

8)  $\tan^{-1}(\cos(\frac{\pi}{2}))$

$$0$$

9)  $\operatorname{cosec}^{-1}(\cos(\frac{4\pi}{2}))$

$$\frac{\pi}{2}$$

10)  $\cot^{-1}(2\sin(\frac{-6\pi}{9}))$

$$\frac{5\pi}{6}$$

11)  $\sec^{-1}(-\sin(\frac{4\pi}{6}))$

$$-\frac{\pi}{6}$$

12)  $\cot^{-1}(-\sin(\frac{3\pi}{6}))$

$$\frac{3\pi}{4}$$