

**Verify fundamental trigonometric identities****1**

What inverse ratio would give this trigonometry ratio?

$$\csc\left(\frac{\pi}{4}\right)$$

A

$$\csc\left(\frac{\pi}{4}\right) = \frac{1}{\cos\left(\frac{\pi}{4}\right)}$$

B

$$\csc\left(\frac{\pi}{4}\right) = \frac{1}{\sin\left(\frac{\pi}{4}\right)}$$

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Is this pythagorean trig identity correct?

$$\sin^2(240^\circ) = \cos^2(240^\circ) + 1$$

A

No

B

Yes

3

Is this pythagorean trig identity correct?

$$\sec^2(150^\circ) = 1 - \tan^2(150^\circ)$$

A

Yes

B

No

4

Is this pythagorean trig identity correct?

$$\cot^2\left(\frac{4\pi}{3}\right) = 1 - \csc^2\left(\frac{4\pi}{3}\right)$$

A

No

B

Yes

5

Complete the pythagorean trig identity for this expression

$$\sin^2(315^\circ)$$

A

$$= \tan^2(315^\circ) \cdot \cos^2(315^\circ)$$

B

$$= \frac{\cos^2(315^\circ)}{\tan^2(315^\circ)}$$

6

Is this pythagorean trig identity correct?

$$\sin^2(210^\circ) = \tan^2(210^\circ) \cdot \cos^2(210^\circ)$$

A

Yes

B

No

7

What inverse ratio would give this trigonometry ratio?

$$\cos(\gamma)$$

A

$$\cos(\gamma) = \frac{1}{\csc(\gamma)}$$

B

$$\cos(\gamma) = \frac{1}{\sec(\gamma)}$$



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Simplify this expression using trig identities

A $\cos^2(\gamma)$

B $\cot^2(\gamma)$

C $\sin^2(\gamma)$

9

Is this pythagorean trig identity correct?

$$\cos^2(\beta) = \frac{\sin^2(\beta)}{\tan^2(\beta)}$$

A

Yes

B

No

10

Is this pythagorean trig identity correct?

$$\cot^2(\theta) = \csc^2(\theta) - 1$$

A

Yes

B

No

11

Is this pythagorean trig identity correct?

$$\sin^2\left(\frac{11\pi}{6}\right) = \cos^2\left(\frac{11\pi}{6}\right) + 1$$

A

No

B

Yes

12

Is this pythagorean trig identity correct?

$$\tan^2\left(\frac{4\pi}{3}\right) = \csc^2\left(\frac{4\pi}{3}\right) - 1$$

A

No

B

Yes