



Trigonometry Identities - Sum to Product Identity True/False (Degrees)

1 Is this sum to product identity correct?

$$\cos(300^\circ) - \cos(210^\circ) = 2\sin\left(\frac{2}{(300^\circ + 210^\circ)}\right)\cos\left(\frac{(300^\circ - 210^\circ)}{2}\right)$$

A
Yes

B
No

2 Is this sum to product identity correct?

$$\cos(30^\circ) + \cos(150^\circ) = \cos\left(\frac{(30^\circ + 150^\circ)}{2}\right)\cos\left(\frac{(30^\circ - 150^\circ)}{2}\right)$$

A
Yes

B
No

3 Is this sum to product identity correct?

$$\sin(120^\circ) + \sin(300^\circ) = \sin\left(\frac{2}{(120^\circ + 300^\circ)}\right)\sin\left(\frac{(120^\circ - 300^\circ)}{2}\right)$$

A
Yes

B
No

4 Is this sum to product identity correct?

$$\cos(135^\circ) + \cos(300^\circ) = 2\cos\left(\frac{(135^\circ + 300^\circ)}{2}\right)\cos\left(\frac{(135^\circ - 300^\circ)}{2}\right)$$

A
Yes

B
No

5 Is this sum to product identity correct?

$$\cos(300^\circ) - \cos(225^\circ) = -2\sin\left(\frac{(300^\circ + 225^\circ)}{2}\right)\sin\left(\frac{(300^\circ - 225^\circ)}{2}\right)$$

A
Yes

B
No

6 Is this sum to product identity correct?

$$\sin(210^\circ) + \sin(300^\circ) = 2\sin\left(\frac{(210^\circ + 300^\circ)}{2}\right)\cos\left(\frac{(210^\circ - 300^\circ)}{2}\right)$$

A
Yes

B
No

7 Is this sum to product identity correct?

$$\sin(45^\circ) + \sin(300^\circ) = \sin\left(\frac{2}{(45^\circ + 300^\circ)}\right)\sin\left(\frac{(45^\circ - 300^\circ)}{2}\right)$$

A
Yes

B
No

8 Is this sum to product identity correct?

$$\cos(30^\circ) - \cos(315^\circ) = -2\sin\left(\frac{(30^\circ + 315^\circ)}{2}\right)\sin\left(\frac{(30^\circ - 315^\circ)}{2}\right)$$

A
Yes

B
No