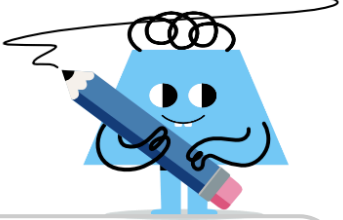
Name

Trigonometry Identities - Half Angle to Identity (Greek Letter)



1

$$\tan\left(\frac{\beta}{2}\right)$$

Complete the half-angle identity for this expression

A	B
$=\pm\sqrt{\frac{1-\cos(\beta)}{1+\cos(\beta)}}$	$=\pm\sqrt{\frac{1+\sin(\beta)}{1-\sin(\beta}$

2

$$\cos\left(\frac{\gamma}{2}\right)$$

Complete the half-angle identity for this expression

A	B
$=\pm\sqrt{\frac{1+\sin(\gamma)}{2}}$	$=\pm\sqrt{\frac{1+\cos(\gamma)}{2}}$

3

$$\tan\left(\frac{\theta}{2}\right)$$

Complete the half-angle identity for this expression

A	B
$=\frac{\sin(\theta)}{1+\cos(\theta)}$	$=\frac{1+\cos(\theta)}{1+\sin(\theta)}$

4

$$\sin\left(\frac{\gamma}{2}\right)$$

Complete the half-angle identity for this expression

A	B
$=\pm\sqrt{\frac{1-\cos(\gamma)}{2}}$	$=\pm\sqrt{\frac{1+\cos(\gamma)}{1-\cos(\gamma}$

5

$$\sin\left(\frac{\theta}{2}\right)$$

Complete the half-angle identity for this expression

A	B
$=\pm\sqrt{\frac{1-\cos(\theta)}{2}}$	$=\pm\sqrt{\frac{1+\cos(\theta)}{2}}$

6

$$\cos\left(\frac{\alpha}{2}\right)$$

Complete the half-angle identity for this expression

A	B
$=\pm\sqrt{\frac{1+\cos(\alpha)}{2}}$	$=\pm\sqrt{\frac{1+\cos(\alpha)}{1-\cos(\alpha}$

7

$$\sin\left(\frac{\alpha}{2}\right)$$

Complete the half-angle identity for this expression

A	B
$=\pm\sqrt{\frac{1+\cos(\alpha)}{1-\cos(\alpha}$	$=\pm\sqrt{\frac{1-\cos(\alpha)}{2}}$

8

$$\cos\left(\frac{\beta}{2}\right)$$

Complete the half-angle identity for this expression

A	B
$=\pm\sqrt{\frac{1+\cos(\beta)}{2}}$	$=\pm\sqrt{\frac{1+\cos(\beta)}{1-\cos(\beta}$