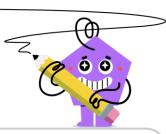
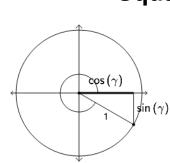


## mobius

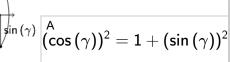
## Trigonometry, Unit Circle Pythagorean Identity - Cos/Sin to Identity (Radians,



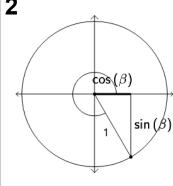


**Squared Notation)** 

What does Pythagoras tell us about the X dimension of this triangle?



$$(\cos{(\gamma)})^2=1-(\sin{(\gamma)})^2$$

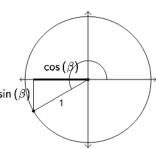


What does Pythagoras tell us about the X dimension of this triangle?

$$\cos\left(eta
ight) = \sqrt{1-(\sin\left(eta
ight))^2}$$

$$\cos\left(eta
ight) = \sqrt{\left(\sin\left(eta
ight)
ight)^2 + 1}$$

3

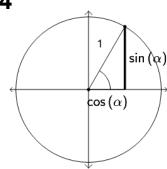


What does Pythagoras tell us about the X dimension of this triangle?

$$\cos\left(eta
ight) = \sqrt{\left(\sin\left(eta
ight)
ight)^2 + 1}$$

$$\cos{(eta)} = \sqrt{1-(\sin{(eta)})^2}$$

4

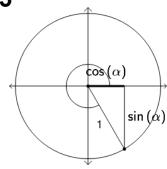


What does Pythagoras tell us about the Y dimension of this triangle?

$$\sin\left(lpha
ight) = \sqrt{1-(\cos\left(lpha
ight))^2}$$

$$\sin{(lpha)} = \sqrt{(\cos{(lpha)})^2 + 1}$$

5

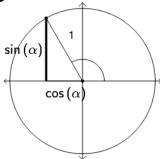


What does Pythagoras tell us about the X dimension of this triangle?

$$\cos{(lpha)} = \sqrt{(\sin{(lpha)})^2 + 1}$$

$$\cos{(lpha)} = \sqrt{1-(\sin{(lpha)})^2}$$

6

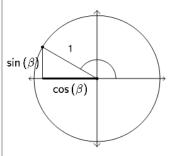


What does Pythagoras tell us about the Y dimension of this triangle?

$$\sin{(lpha)} = \sqrt{(\cos{(lpha)})^2 + 1}$$

$$\sin{(lpha)} = \sqrt{1-(\cos{(lpha)})^2}$$

7

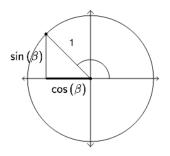


What does Pythagoras tell us about the X dimension of this triangle?

$$(\cos{(eta)})^2=1+(\sin{(eta)})^2$$

$$(\cos{(eta)})^2=1-(\sin{(eta)})^2$$

8



What does Pythagoras tell us about the X dimension of this triangle?

$$\cos\left(eta
ight) = \sqrt{1-(\sin\left(eta
ight))^2}$$

$$\cos\left(eta
ight) = \sqrt{(\sin\left(eta
ight))^2 + 1}$$