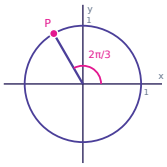
Trig Functions on the Unit Circle · 1

Find the exact value of $\sin(\pi/2)$.

Trig Functions on the Unit Circle · 2

Find the point P where the terminal side of $\theta = 2\pi/3$ meets the unit circle.

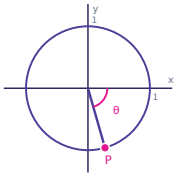


Trig Functions on the Unit Circle · 3

Find the exact value of $\tan(-135°)$.

Trig Functions on the Unit Circle · 4

The terminal side of θ meets the unit circle at $P\left(\frac{7}{25}, -\frac{24}{25}\right)$. Find $\tan\theta$.



Trig Functions on the Unit Circle · 5

$P\left(\frac{7}{25}, y\right)$ is on the unit circle in quadrant IV. Find y.

Trig Functions on the Unit Circle · 6

θ is in quadrant IV and its reference angle is 45°. Find the exact value of $\tan\theta$.

Trig Functions on the Unit Circle · 7

$\sin\theta < 0$ and $\cos\theta > 0$. In which quadrant does θ lie?

Trig Functions on the Unit Circle · 8

Is $\cos(\pi/4)$ positive or negative?

Trig Functions on the Unit Circle · 2

ANSWER

$$\left(-\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$$

Trig Functions on the Unit Circle · 1

ANSWER

1

Trig Functions on the Unit Circle · 4

ANSWER

$$-\frac{24}{7}$$

Trig Functions on the Unit Circle · 3

ANSWER

1

Trig Functions on the Unit Circle · 6

ANSWER

-1

Trig Functions on the Unit Circle · 5

ANSWER

$$-\frac{24}{25}$$

Trig Functions on the Unit Circle · 8

ANSWER

positive

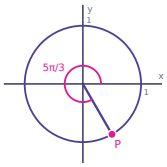
Trig Functions on the Unit Circle · 7

ANSWER

IV

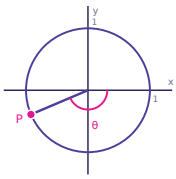
Find the exact value of $\sin(13\pi/6)$.

Find the point P where the terminal side of $\theta = 5\pi/3$ meets the unit circle.



Find the exact value of $\sin(660°)$.

The terminal side of θ meets the unit circle at $P(-\frac{12}{13}, -\frac{5}{13})$. Find $\tan\theta$.



$P(x, \frac{8}{17})$ is on the unit circle in quadrant I. Find x.

θ is in quadrant II and its reference angle is 45°. Find the exact value of $\tan\theta$.

$\cos\theta > 0$ and $\tan\theta > 0$. In which quadrant does θ lie?

Is $\tan(100°)$ positive or negative?

Trig Functions on the Unit Circle · 10

ANSWER

$$\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$$

Trig Functions on the Unit Circle · 9

ANSWER

$$\frac{1}{2}$$

Trig Functions on the Unit Circle · 12

ANSWER

$$\frac{5}{12}$$

Trig Functions on the Unit Circle · 11

ANSWER

$$-\frac{\sqrt{3}}{2}$$

Trig Functions on the Unit Circle · 14

ANSWER

$$-1$$

Trig Functions on the Unit Circle · 13

ANSWER

$$\frac{15}{17}$$

Trig Functions on the Unit Circle · 16

ANSWER

negative

Trig Functions on the Unit Circle · 15

ANSWER

I

Trig Functions on the Unit Circle · 17

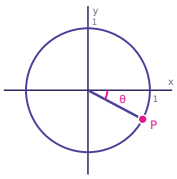
Find the exact value of tan(5π/3).

Trig Functions on the Unit Circle · 18

Find the exact value of cos(-60°).

Trig Functions on the Unit Circle · 19

The terminal side of θ meets the unit circle at $P(\frac{15}{17}, -\frac{8}{17})$. Find tan θ.



Trig Functions on the Unit Circle · 20

$P(x, \frac{12}{13})$ is on the unit circle in quadrant I. Find x.

Trig Functions on the Unit Circle · 21

θ is in quadrant IV and its reference angle is 30°. Find the exact value of tan θ.

Trig Functions on the Unit Circle · 22

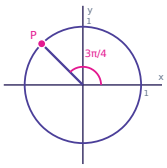
sin θ > 0 and cos θ > 0. In which quadrant does θ lie?

Trig Functions on the Unit Circle · 23

Is cos(4π/3) positive or negative?

Trig Functions on the Unit Circle · 24

Find the point P where the terminal side of θ = 3π/4 meets the unit circle.



Trig Functions on the Unit Circle · 18

ANSWER

$$\frac{1}{2}$$

Trig Functions on the Unit Circle · 17

ANSWER

$$-\sqrt{3}$$

Trig Functions on the Unit Circle · 20

ANSWER

$$\frac{5}{13}$$

Trig Functions on the Unit Circle · 19

ANSWER

$$\frac{8}{-15}$$

Trig Functions on the Unit Circle · 22

ANSWER

I

Trig Functions on the Unit Circle · 21

ANSWER

$$\frac{\sqrt{3}}{-3}$$

Trig Functions on the Unit Circle · 24

ANSWER

$$\left(-\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}\right)$$

Trig Functions on the Unit Circle · 23

ANSWER

negative