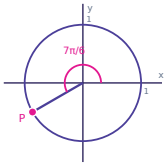
Trig Functions on the Unit Circle · 1

Find the point P where the terminal side of θ = 7π/6 meets the unit circle.

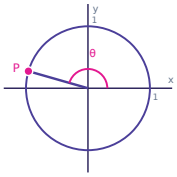


Trig Functions on the Unit Circle · 2

Find the exact value of tan(4π/3).

Trig Functions on the Unit Circle · 3

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



Trig Functions on the Unit Circle · 4

$P(x, \frac{5}{13})$ is on the unit circle in quadrant II. Find x.

Trig Functions on the Unit Circle · 5

Is tan(100°) positive or negative?

Trig Functions on the Unit Circle · 6

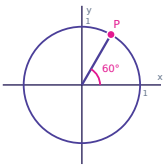
sin θ < 0 and cos θ < 0. In which quadrant does θ lie?

Trig Functions on the Unit Circle · 7

θ is in quadrant II and its reference angle is 60°. Find the exact value of tan θ.

Trig Functions on the Unit Circle · 8

Find the point P where the terminal side of θ = 60° meets the unit circle.



Trig Functions on the Unit Circle · 2

ANSWER

$\sqrt{3}$

Trig Functions on the Unit Circle · 1

ANSWER

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

Trig Functions on the Unit Circle · 4

ANSWER

$-\frac{12}{13}$

Trig Functions on the Unit Circle · 3

ANSWER

$-\frac{7}{24}$

Trig Functions on the Unit Circle · 6

ANSWER

III

Trig Functions on the Unit Circle · 5

ANSWER

negative

Trig Functions on the Unit Circle · 8

ANSWER

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

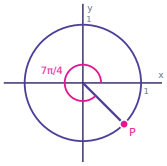
Trig Functions on the Unit Circle · 7

ANSWER

$-\sqrt{3}$

Trig Functions on the Unit Circle · 9

Find the point P where the terminal side of θ = 7π/4 meets the unit circle.

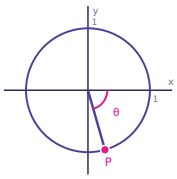


Trig Functions on the Unit Circle · 10

Find the exact value of sin(3π/2).

Trig Functions on the Unit Circle · 11

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



Trig Functions on the Unit Circle · 12

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

Trig Functions on the Unit Circle · 13

Is tan(7π/6) positive or negative?

Trig Functions on the Unit Circle · 14

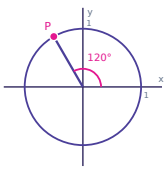
sin θ < 0 and cos θ > 0. In which quadrant does θ lie?

Trig Functions on the Unit Circle · 15

θ is in quadrant III and its reference angle is 45°. Find the exact value of cos θ.

Trig Functions on the Unit Circle · 16

Find the point P where the terminal side of θ = 120° meets the unit circle.



Trig Functions on the Unit Circle · 10

ANSWER

-1

Trig Functions on the Unit Circle · 9

ANSWER

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

Trig Functions on the Unit Circle · 12

ANSWER

$-\frac{15}{17}$

Trig Functions on the Unit Circle · 11

ANSWER

$\frac{7}{25}$

Trig Functions on the Unit Circle · 14

ANSWER

IV

Trig Functions on the Unit Circle · 13

ANSWER

positive

Trig Functions on the Unit Circle · 16

ANSWER

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

Trig Functions on the Unit Circle · 15

ANSWER

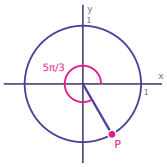
$-\frac{\sqrt{2}}{2}$

Trig Functions on the Unit Circle · 17

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

Trig Functions on the Unit Circle · 18

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

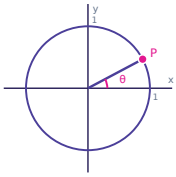


Trig Functions on the Unit Circle · 19

Find the exact value of $\tan(-150°)$.

Trig Functions on the Unit Circle · 20

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



Trig Functions on the Unit Circle · 21

$P(-\frac{5}{13}, y)$ is on the unit circle in quadrant III. Find y.

Trig Functions on the Unit Circle · 22

θ is in quadrant IV and its reference angle is 60°. Find the exact value of $\cos\theta$.

Trig Functions on the Unit Circle · 23

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

Trig Functions on the Unit Circle · 24

Is $\sin(5\pi/4)$ positive or negative?

Trig Functions on the Unit Circle · 18

ANSWER

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

Trig Functions on the Unit Circle · 17

ANSWER

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

Trig Functions on the Unit Circle · 20

ANSWER

$$\frac{8}{17}$$

Trig Functions on the Unit Circle · 19

ANSWER

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

Trig Functions on the Unit Circle · 22

ANSWER

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

Trig Functions on the Unit Circle · 21

ANSWER

$$-\frac{12}{13}$$

Trig Functions on the Unit Circle · 24

ANSWER

negative

Trig Functions on the Unit Circle · 23

ANSWER

III