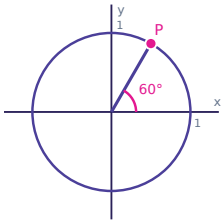
Task card 1 Trig Functions on the Unit Circle

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



Task card 2 Trig Functions on the Unit Circle

Is tan(100°) positive or negative?

Task card 3 Trig Functions on the Unit Circle

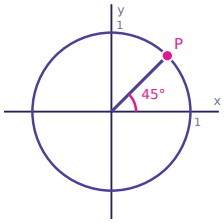
Find the exact value of sin(135°).

Task card 4 Trig Functions on the Unit Circle

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

Task card 5 Trig Functions on the Unit Circle

Find the point P where the terminal side of θ = 45° meets the unit circle.



Task card 6 Trig Functions on the Unit Circle

Is tan(240°) positive or negative?

Task card 7 Trig Functions on the Unit Circle

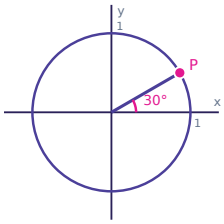
$\sin\theta < 0$ and $\cos\theta > 0$. In which quadrant does θ lie?

Task card 8 Trig Functions on the Unit Circle

Is $\sin(160°)$ positive or negative?

Task card 9 Trig Functions on the Unit Circle

Find the point P where the terminal side of $\theta = 30°$ meets the unit circle.



Task card 10 Trig Functions on the Unit Circle

Is $\tan(160°)$ positive or negative?

Task card 11 Trig Functions on the Unit Circle

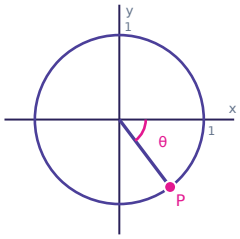
$\cos\theta < 0$ and $\tan\theta < 0$. In which quadrant does θ lie?

Task card 12 Trig Functions on the Unit Circle

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

Task card 13 Trig Functions on the Unit Circle

The terminal side of θ meets the unit circle at $P(\frac{3}{5}, -\frac{4}{5})$. Find sin θ.

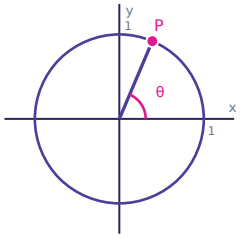


Task card 14 Trig Functions on the Unit Circle

Find the exact value of cos(30°).

Task card 15 Trig Functions on the Unit Circle

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



Task card 16 Trig Functions on the Unit Circle

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

Task card 17 Trig Functions on the Unit Circle

Is tan(330°) positive or negative?

Task card 18 Trig Functions on the Unit Circle

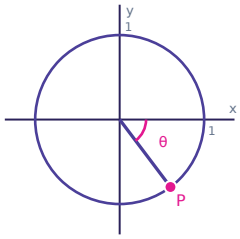
sin θ > 0 and cos θ < 0. In which quadrant does θ lie?

Task card 19 Trig Functions on the Unit Circle

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

Task card 20 Trig Functions on the Unit Circle

The terminal side of θ meets the unit circle at $P(\frac{3}{5}, -\frac{4}{5})$. Find tan θ.



Task card 21 Trig Functions on the Unit Circle

Find the exact value of cos(150°).

Task card 22 Trig Functions on the Unit Circle

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

Task card 23 Trig Functions on the Unit Circle

Find the exact value of sin(330°).

Task card 24 Trig Functions on the Unit Circle

Is tan(150°) positive or negative?

Trig Functions on the Unit Circle Task Cards

Recording sheet · Grade 11 · Give exact values (like -√3/2) and points as (x, y). Write quadrants as I, II, III or IV, signs as positive or negative, and "undefined" where a value does not exist.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Trig Functions on the Unit Circle Task Cards: Answer Key

Grade 11 · Easy

The answers online

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

2. negative

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

4. I

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

6. positive

7. IV

8. positive

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

10. negative

11. II

12. $-\frac{1}{2}$

13. $-\frac{4}{5}$

14. $\frac{\sqrt{3}}{2}$

15. $\frac{12}{13}$

16. I

17. negative

18. II

19. $-\frac{1}{2}$

20. $-\frac{4}{3}$

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

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

23. $-\frac{1}{2}$

24. negative