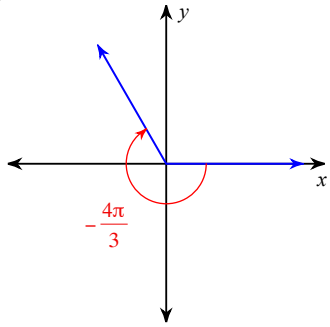
Precalculus Name_____

Unit Circle: Sine, Cosine, Tangent

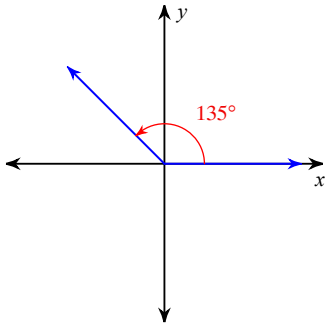
Date_____

Find the exact value of each trigonometric function. Use the unit circle to find your answers.

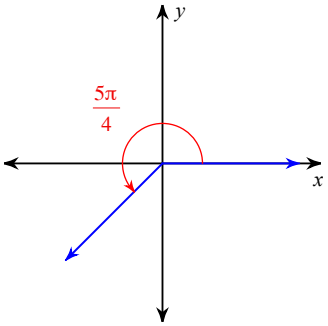
1) tan θ



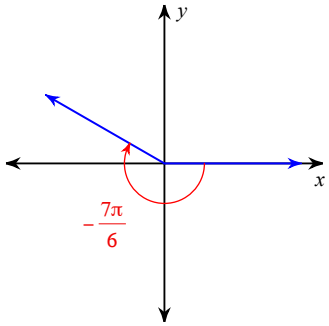
2) tan θ



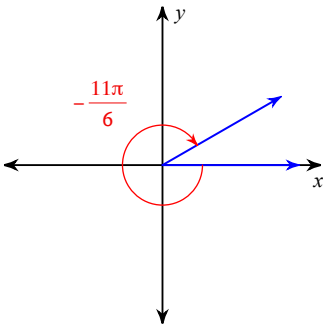
3) sin θ



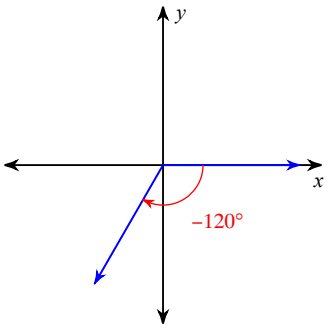
4) tan θ



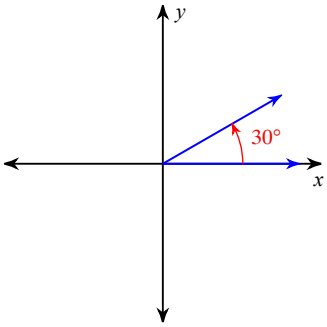
5) sin θ



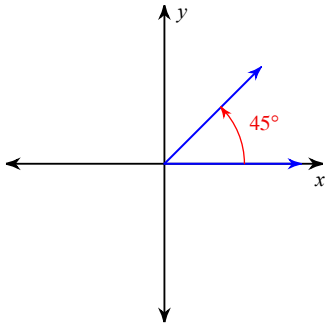
6) cos θ



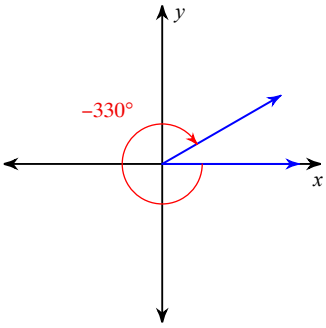
7) cos θ



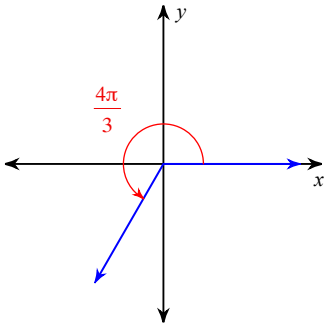
8) tan θ



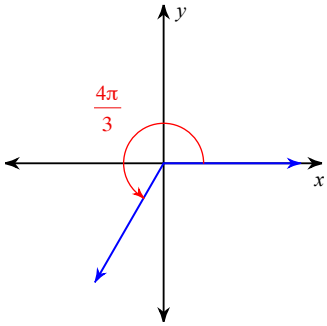
9) tan θ



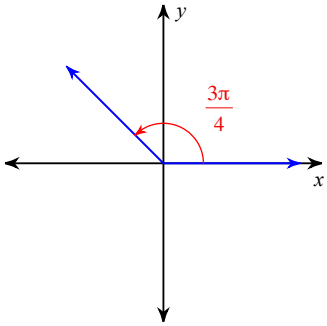
10) tan θ



11) cos θ



12) tan θ



13) tan $\frac{5\pi}{3}$

14) cos 0

15) sin $\frac{4\pi}{3}$

16) tan 315°

17) cos 150°

18) tan 120°

19) tan 0

20) sin $\frac{\pi}{6}$

21) sin $\frac{5\pi}{6}$

22) tan $\frac{\pi}{4}$

23) tan 210°

24) tan $\frac{3\pi}{2}$

25) $\sin \frac{7\pi}{6}$

Answers to Unit Circle: Sine, Cosine, Tangent

1) $-\sqrt{3}$

2) -1

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

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

5) $\frac{1}{2}$

6) $-\frac{1}{2}$

7) $\frac{\sqrt{3}}{2}$

8) 1

9) $\frac{\sqrt{3}}{3}$

10) $\sqrt{3}$

11) $-\frac{1}{2}$

12) -1

13) $-\sqrt{3}$

14) 1

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

16) -1

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

18) $-\sqrt{3}$

19) 0

20) $\frac{1}{2}$

21) $\frac{1}{2}$

22) 1

23) $\frac{\sqrt{3}}{3}$

24) Undefined

25) $-\frac{1}{2}$