
Show all work on notebook paper!!

Change to radian measure. Leave your answer in terms of π .

1. 15° 2. -105° 3. 540°

Change to degree measure.

4. $-\frac{7\pi}{9}$ 5. $\frac{11\pi}{5}$ 6. 8π

Sketch the angle, name the quadrant in which the terminal side of each angle lies, AND give its reference angle.

7. 41° 8. -290° 9. 530° 10. 950° 11. $\frac{32\pi}{7}$ 12. $-\frac{29\pi}{11}$

Given the following about an angle in standard position, find the requested information. Draw and label a triangle in the appropriate quadrant!

13. $\sin \theta = \frac{12}{13}$ and θ is in quadrant II. Find $\cos \theta$.

14. $\sec \theta = -\frac{3}{2}$ and θ is in quadrant III. Find $\tan \theta$.

15. $\csc \theta = \frac{4}{3}$ and θ is in quadrant II. Find $\cos \theta$.

16. $\cos \theta = \frac{\sqrt{10}}{4}$ and θ is in quadrant IV. Find $\cot \theta$.

17. The terminal side of θ passes through $(-2, 2\sqrt{15})$, find $\csc \theta$.

Answer each question, carefully!

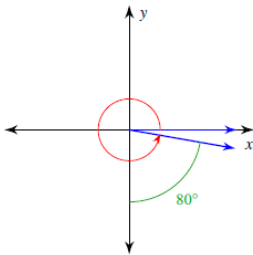
18. If $\csc \theta > 0$ and $\cot \theta < 0$, in which quadrant does θ terminate?

19. Which is undefined? (a) $\tan 180^\circ$ (b) $\tan 270^\circ$ (c) $\tan 360^\circ$

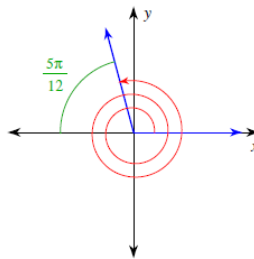
20. For what angles between 0 and 2π is the secant function undefined?

Find the measure of each angle.

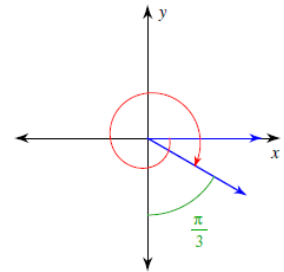
21.



22.



23.



Find the reference angle.

24. -510°

25. $\frac{13\pi}{18}$

26. $-\frac{13\pi}{12}$

Are the given angles coterminal?

27. $\frac{17\pi}{36}, \frac{161\pi}{36}$

28. $90^\circ, 290^\circ$

29. Find an angle between 0° and 360° that is coterminal with -435°

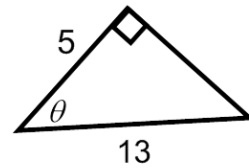
30. Find an angle between 0 and 2π that is coterminal with $\frac{11\pi}{3}$.

Find a positive and a negative coterminal angle for each given angle.

31. $-\frac{7\pi}{6}$

32. 640°

33. Find the 6 trigonometric functions for the following triangle:



34. $\cos \theta = \frac{2}{5}$, where $\sin \theta > 0$ and $\tan \theta > 0$. Find the exact values of the five remaining trig functions.

Find the exact value.

35. $\tan \frac{15\pi}{6}$

36. $\sin 180^\circ$

37. $\csc \frac{\pi}{2}$

ANSWERS - UNIT 1 - INTRO TO TRIG - REVIEW WS

1. $\frac{\pi}{12}$

2. $-\frac{7\pi}{12}$

3. 3π

4. -140°

5. 396°

6. 1440°

7. I, 41°

8. I, 70°

9. II, 10°

10. III, 50°

11. II, $\frac{3\pi}{7}$

12. III, $\frac{4\pi}{11}$

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

14. $\frac{\sqrt{5}}{2}$

15. $-\frac{\sqrt{7}}{4}$

16. $-\frac{\sqrt{15}}{3}$

17. $\frac{4\sqrt{15}}{15}$

18. II

19. B

20. $\frac{\pi}{2}, \frac{3\pi}{2}$

21. 350°

22. $\frac{55\pi}{12}$

23. $-\frac{13\pi}{6}$

24. 30°

25. $\frac{5\pi}{18}$

26. $\frac{\pi}{12}$

27. Yes

28. No

29. 285°

30. $\frac{5\pi}{3}$

31. $\frac{5\pi}{6}; \frac{-19\pi}{6}$

32. $280^\circ; -80^\circ$

33. $\sin = \frac{12}{13}; \cos = \frac{5}{13}; \tan = \frac{12}{5}$
 $\csc = \frac{13}{12}; \sec = \frac{13}{5}; \cot = \frac{5}{12}$

34. $\sin = \frac{\sqrt{21}}{5}; \tan = \frac{\sqrt{21}}{2}$

$\csc = \frac{5\sqrt{21}}{21}; \sec = \frac{5}{2}; \cot = \frac{2\sqrt{21}}{21}$

35. Undefined

36. 0

37. 1