

Unit 1 TEST (Intro To Trigonometry)

Part 1 (NO Calculator)

Give the exact value of the trig function using the unit circle.

1. $\cot -\frac{2\pi}{3}$

2. $\csc \frac{5\pi}{3}$

3. $\tan -\frac{5\pi}{4}$

4. $\sin \frac{11\pi}{6}$

5. $\sec 0$

6. $\sec 120^\circ$

7. $\csc -315^\circ$

8. $\csc 0^\circ$

Part 2 (Calculator OK)

Use a calculator to find each value. Round to four decimal places.

9. $\cos 101^\circ$

10. $\sin 105^\circ$

11. $\sin -228^\circ$

12. $\csc 1.3$

13. $\sec 22.8$

14. $\tan \frac{\pi}{3}$

15. $\sin \frac{\pi}{4}$

16. $\cot 1$

Find the reference angle.

17. $\theta = 208^\circ$

18. $\theta = -292^\circ$

19. $\theta = \frac{11\pi}{3}$

20. $\theta = -\frac{17\pi}{6}$

21. $\theta = 4.8$

22. $\theta = -1.72$

Find one positive and one negative co-terminal angle.

23. $\theta = \frac{\pi}{12}$

24. $\theta = \frac{2\pi}{3}$

25. $\theta = -390^\circ$

26. $\theta = 114^\circ$

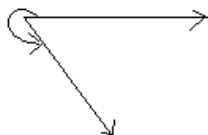
Sketch the angle in standard position.

27. 412°

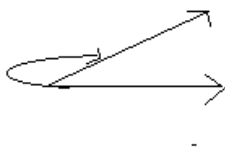
28. -200°

29. 137°

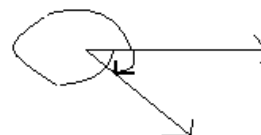
Estimate the measure of the angles in degrees.



30.



31.



32.

Determine the quadrant where the terminal side of the angle lies.

33. $\theta = \frac{11\pi}{4}$

34. $\theta = 257^\circ$

35. $\theta = -\frac{11\pi}{9}$

36. $\theta = -24^\circ$

37. $\sin\theta < 0$ and $\tan\theta < 0$

38. $\sec\theta < 0$ and $\cot\theta > 0$

Find the exact value of the trig function given whose terminal side passes through the given point.

39. (7, 24)

40. (-24, 10)

41. (-5, -6)

$\sin\theta$

$\cos\theta$

$\tan\theta$

$\cot\theta$

$\csc\theta$

$\sec\theta$

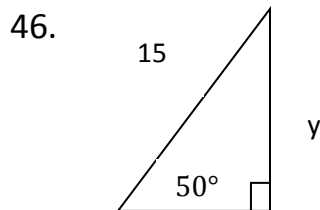
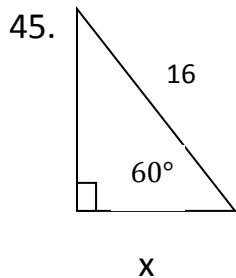
Find the exact value of the function given.

42. $\sin\theta = -\frac{4}{5}$ and θ lies in *QIII*. Find $\cos\theta$.

43. $\csc\theta = 4$ and $\cot\theta < 0$. Find $\tan\theta$.

44. $\sin\theta = 0$ and $\frac{\pi}{2} \leq \theta \leq \frac{3\pi}{2}$. Find $\sec\theta$.

Find the missing side of the triangle.



Convert to radians (with π)

47. -215°

48. 144°

Convert to degrees. Round to two decimal places if needed.

49. 4.3

50. -3.58

51. $\frac{7\pi}{12}$

52. $\frac{25\pi}{8}$