Name _____ © 2019, A. Azzolino 2hr.htm

Start a new line.

1. Simplify: $\sin(45°)$ is $\sqrt{2}/2$
2. Simplify: $\sin(-45°)$ is $-\sqrt{2}/2$
3. Simplify: $\tan(240°)$ is $\sqrt{3}$
4. Simplify: In radians, $\tan^{-1}(-\sqrt{3})$ is $-\pi/3$
5. Simplify: In positive degrees, $\tan^{-1}(-\sqrt{3})$ is 300°
6. Simplify: $\cos(210°)$ is $-\sqrt{3}/2$
7. Solve: $\cos(x)=-\sqrt{3}/2$, $[0,2\pi)$ is $x=5\pi/6, 7\pi/6$
8. Solve: $\tan(x)=1$, $[0,2\pi)$ is $x=\pi/4, 5\pi/4$
9. Simplify: $\tan(\pi/2)$ is undefined
10. Solve: $\sin(x)=2$ has no solution
11. Simplify: $\cot(150°)$ is $-\sqrt{3}$
12. Simplify: $\csc(\cos^{-1}(1/2))$ is $\frac{2\sqrt{3}}{3}$
13. Simplify: $\sin(\pi/6)$ is 1/2
14. Simplify: $\sin^{-1}(\sin(47°))$ is 47°
15. Simplify: $\sin(\sin^{-1}(.2))$ is .2
16. Write in symbols the "angle whose sine is .3" is $\sin^{-1}(.3)$
17. Simplify: In degrees: $\sin^{-1}(.5)$ is 30°
18. State the quadrants in which the sine of an angle is positive. is I, II
19. Choose: The cosine is odd or even. is even
20. When is sec(x) undefined? is $\pi/2 \pm n\pi$
21. Simplify: $\tan(\pi/6)$ is $\sqrt{3}/3$
22. Simplify: $\tan^{-1}(-\sqrt{3}/3)$ is $-\pi/6$
23. Solve: $3\tan^2(x)-1=0$, $[\pi,2\pi]$ is $x=7\pi/6, 11\pi/6$
24. Solve: $3\tan^2(x)-1=0$, $[0,2\pi)$ is $x=\pi/6, 5\pi/6, 7\pi/6, 11\pi/6$
25. Solve: $3\tan^2(x)-1=0$ is $x=\pi/6\pm n\pi, 5\pi/6\pm n\pi$
26. Simplify: $\tan^{-1}(0)$ is 0

Start a new line.

27. Simplify: In degrees: $\cos^{-1}(\sqrt{3}/2)$ is 30°
28. Simplify: $\cos^{-1}(-1)$ is π
29. Simplify: $\sin(60°)$ is $\sqrt{3}/2$
30. Simplify: $\sin^{-1}(\sqrt{3}/2)$ is $\pi/3$
31. Solve: $\sin(x)=\sqrt{3}/2$, $[\pi/2,3\pi/2]$ is $x=2\pi/3$
32. Solve: $4\sin^2(x)=3$, $[0,2\pi)$ is $x=\pi/3, 2\pi/3, 4\pi/3, 5\pi/3$
33. Solve: $4\sin^2(x)=3$ is $x=\pi/3\pm n\pi, 2\pi/3\pm n\pi$
34. Simplify: $-\cos^{-1}(-1)$ is $-\pi$
35. Complete: The tangent is positive in quadrant I and this quadrant. is III
36. Simplify: $\sin(-x)$ is $-\sin(x)$
37. Simplify: $\cos(-x)$ is $\cos(x)$
38. Choose: The sine is odd or even. is odd
39. Rewrite w/a Pythagorean Identity: $\tan^2(x)$ is $\sec^2(x)-1$
40. Simplify: $\cos(0)$ is 1
41. All trig functionas are positive in this quadrant. is I
42. Rewrite w/a Pythagorean Identity: $\cos^2(x)-1$ is $-\sin^2(x)$
43. Simplify: $\tan(\pi/2-x)$ is $\cot(x)$
44. Simplify: $\sin(x)/\cos(x)$ is $\tan(x)$
45. State the range of the sine function. is [-1,1]
46. Simplify: $\sin(0)$ is 0
47. Simplify: $\tan^{-1}(1)$ is $\pi/4$
48. Simplify: $\cos(300°)$ is 1/2

Start a new line.

49. Simplify: $\tan(\sin^{-1}(\sqrt{2}/2))$ is 1
50. State the range of the cosecant. is $(-\infty,-1]$ and $[1,\infty)$
51. Simplify: $\cos(120°)$ is -1/2
52. All arcfunctions are positive in this quadrant. is I

Start a new line.

53. State the period of the cosine. is 2π
54. The arccosine of a negative number is in this quadrant. is II
55. Simplify: $\tan^{-1}(\tan(B))$, $(0,\infty)$ is B
56. Simplify: $\tan^{-1}(\tan(D))$, $(-\infty,0)$ is D