

# Learnzy Academy

## Worksheet: Trigonometry

1. The value of  $\cos(105 \text{ degrees}) + \cos(15 \text{ degrees})$  is:
2. If A, B, C are angles of a triangle, then  $\sin(A+B)$  is equal to:
3. Domain of  $\sin^{-1}(x)$
4. The number of solutions of  $\tan x = \sec x$  in  $[0, 2\pi]$  is
5. Express  $2 \sin 3x \cos x$  as a sum/difference.
6. What is the range of the function  $f(x) = 3 \sin x - 1$ ?
7. Value of  $\tan^{-1}(x) + \cot^{-1}(x)$
8. The general solution for  $\cos x = 0$  is:
9. What is the value of  $\tan^{-1}(\tan(5\pi/4))$ ?
10. The range of  $f(x) = \cos^{-1}(x^2-1)$  for  $x$  in  $[-1, 1]$  is
11. If  $\sin(\theta) + \cos(\theta) = 1$ , then  $\sin(\theta)\cos(\theta)$  is:
12. If  $\tan^{-1}(x) = y$ , then range of  $y$  is
13. The value of  $\cos(36 \text{ degrees})$  is:
14. The value of  $\cos(\pi/2 - x)$  is:
15. If  $2 \cos^2 x = 1 + \cos y$ , then  $y$  is equal to:
16. The value of  $\sin(2\sin^{-1}(x))$  is
17. If  $\sin^{-1}(x) + \cos^{-1}(y) = \pi$ , then
18. If  $\cos(x) = 1/2$ , then  $\cos(2x)$  is:
19. What is the value of  $\tan(225 \text{ degrees})$ ?
20. Principal value of  $\tan^{-1}(-1)$