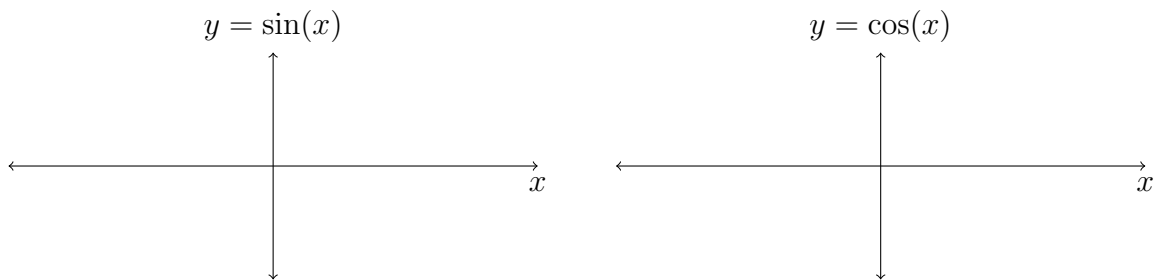


Warm up questions 2 points each.

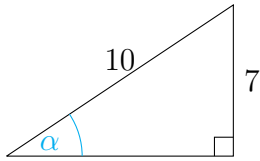
- The domain of sine is _____ and the range is _____.
- The domain of cosine is _____ and the range is _____.
- What numbers are excluded from the domain of tangent? _____
- The range of tangent is _____.
- The domain of $\sin^{-1}(x)$ is _____ and the range is _____.
- The domain of $\tan^{-1}(x)$ is _____ and the range is _____.
- If $\sin(\alpha) = .3$ then $\sin(-\alpha) =$ _____.
- If $\cos(\beta) = .7$ then $\cos(-\beta) =$ _____.
- Graph $y = \sin(x)$ on the left and $y = \cos(x)$ on the right.



- $\sin(0) =$ ____, $\cos(0) =$ ____ $\tan(0) =$ _____.
- $\sin\left(\frac{5\pi}{3}\right) =$ ____, $\cos\left(\frac{5\pi}{3}\right) =$ ____, $\tan\left(\frac{5\pi}{3}\right) =$ _____
- $\sin\left(-\frac{\pi}{4}\right) =$ ____, $\cos\left(-\frac{\pi}{4}\right) =$ ____, $\tan\left(-\frac{\pi}{4}\right) =$ _____
- $\sin^{-1}\left(\frac{\sqrt{3}}{2}\right) =$ ____, $\cos^{-1}\left(\frac{\sqrt{3}}{2}\right) =$ _____

Questions worth 4 points each.

14. Find all the trigonometric functions of α .



(a) $\sin(\alpha) =$

(b) $\cos(\alpha) =$

(c) $\tan(\alpha) =$

(d) $\sec(\alpha) =$

(e) $\csc(\alpha) =$

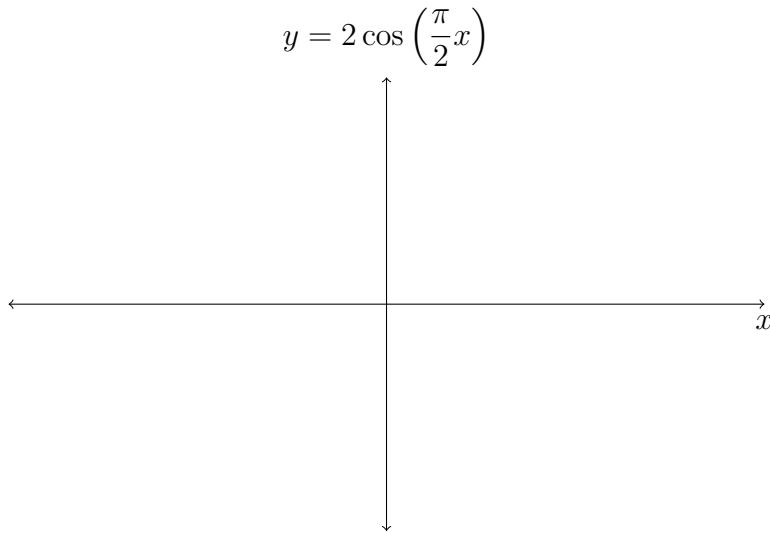
(f) $\cot(\alpha) =$

15. Using your answer above, find $\tan(\sin^{-1}(\frac{7}{10}))$

16. More generally, find $\tan(\sin^{-1}(x))$

17. Let $f(x) = 2 \cos\left(\frac{\pi}{2}x\right)$. The period is _____ and the amplitude is _____.

18. Graph $f(x) = 2 \cos\left(\frac{\pi}{2}x\right)$ clearly labeling the x and y axes.



19. Solve the triangle with $A = 30^\circ$, $C = 95^\circ$, $a = 10$

i $B =$ _____

ii $b =$ _____

iii $c =$ _____

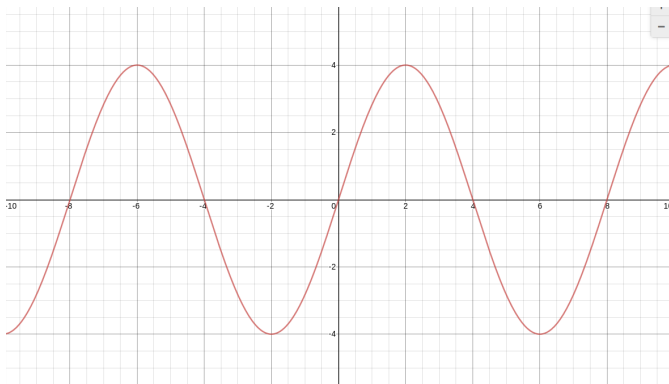
20. Solve the triangle with $a = 5$, $b = 6$, $c = 8$

i $A =$ _____

ii $B =$ _____

iii $C =$ _____

21. For the function below, find the amplitude and the period.

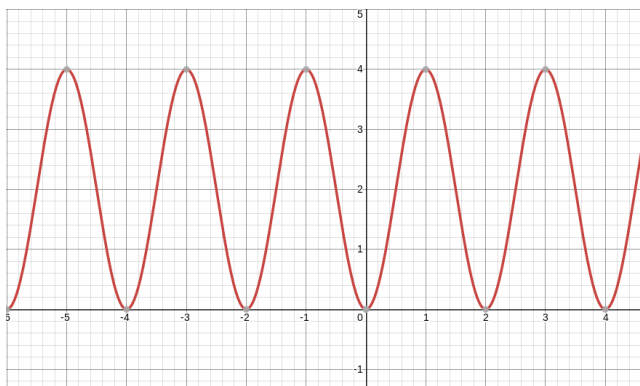


(a) Period: _____

(b) Amplitude: _____

22. Using your answer above, give a good guess as to what function was graphed.

23. (Extra Credit) For the function below, find the amplitude and the period.



(a) Period: _____

(b) Amplitude: _____

24. What function was graphed?