

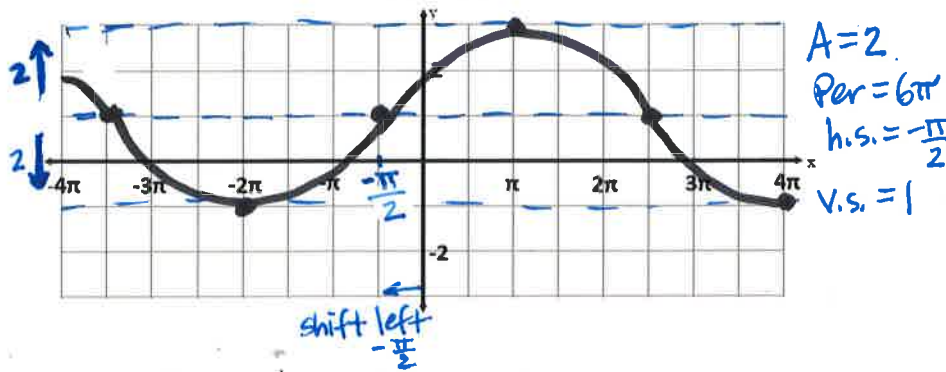
Refer to your six basic trig graphs to answer #45-52. Use the interval $0 \leq x \leq 2\pi$ (which means you may have multiple solutions.)

45. $\arcsin(0)$ 46. $\tan^{-1}(1)$ 47. $\arccos(\cot \frac{\pi}{2})$ 48. $\arctan(-1)$
 49. $\arcsin(1)$ 50. $\cos^{-1}(1)$ 51. $\sin^{-1}[\sec(-5\pi)]$ 52. $\tan^{-1}(0)$

53. Identify the amplitude, period, horizontal and vertical

shift for $y = -2\sin\left(3x - \frac{\pi}{12}\right) + 7$.

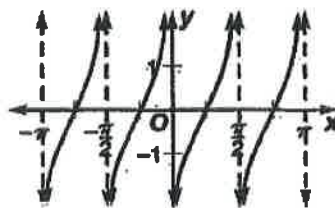
54. Identify the amplitude, period, horizontal and vertical shift, then sketch the graph of $y = 2\sin\left(\frac{x}{3} + \frac{\pi}{6}\right) + 1$ for the interval $-4\pi \leq x \leq 4\pi$



check answers #45-58

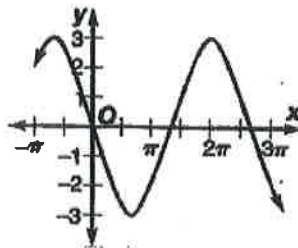
0	0	0	1	2	2	7
$\frac{2\pi}{3}$	A	B	C	D		
$\frac{\pi}{12}$	$\frac{\pi}{4}$	$\frac{3\pi}{4}$	$\frac{5\pi}{4}$	$\frac{7\pi}{4}$		
$-\frac{\pi}{2}$	$\frac{\pi}{2}$	$\frac{\pi}{2}$	$\frac{3\pi}{2}$	$\frac{3\pi}{2}$		
π	π	2π	2π	2π	6π	

- B 55. What is the equation of the graph shown at the right?
 A. $y = \tan 2x$ B. $y = \tan\left(2x + \frac{\pi}{2}\right)$
 C. $y = \cot 2x$ D. $y = \cot\left(2x + \frac{\pi}{2}\right)$



Must show work to earn credit for #55-58!

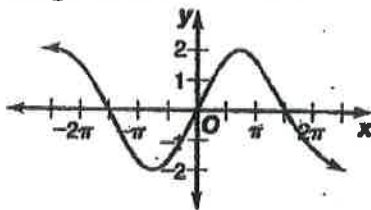
- C 56. What is the equation of the graph shown at the right?
 A. $y = 3 \cos \frac{2x}{3}$ B. $y = 3 \cos \frac{3x}{4}$
C. $y = -3 \sin \frac{3x}{4}$ D. $y = -3 \sin \frac{2x}{3}$



REMINDER:

Be sure to factor equations first, then identify the horizontal shift.

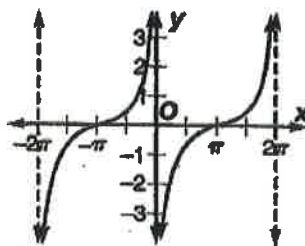
- A 57. What is the equation of the graph shown below?
A. $y = -2 \sin\left(\frac{2x}{3} - \pi\right)$
 B. $y = 2 \cos\left(\frac{x}{3} - \frac{\pi}{2}\right)$
 C. $y = -2 \sin\left(\frac{2x}{3} - \frac{\pi}{2}\right)$
 D. $y = 2 \cos\left(\frac{2x}{3} - \pi\right)$



HINT for #55-58:

Factor first, then use a process of elimination as you identify the period and horizontal shift for each equation.

- D 58. What is the equation of the graph shown at the right?
 A. $y = \tan\left(\frac{x}{2} + \pi\right)$ B. $y = -\cot\left(\frac{x}{2} + \frac{\pi}{2}\right)$
 C. $y = \tan\left(\frac{x}{2} - \pi\right)$ D. $y = -\cot\left(\frac{x}{2} + \pi\right)$



KEY