

Math 154 – Test 4 Review

Graph one complete cycle. Identify  $A$ , the period, phase shift, and vertical translation.

1)  $y = 4 \sin x$

2)  $y = \cos(3x)$

3)  $y = \sin x - 4$

4)  $y = \cos\left(x + \frac{\pi}{3}\right)$

5)  $y = \sin(\pi x)$

6)  $y = -2 \cos x$

7)  $y = 3 \sin\left(2\left(x - \frac{\pi}{4}\right)\right) + 2$

8)  $y = 5 \cos\left(3\left(x - \frac{\pi}{2}\right)\right) - 1$

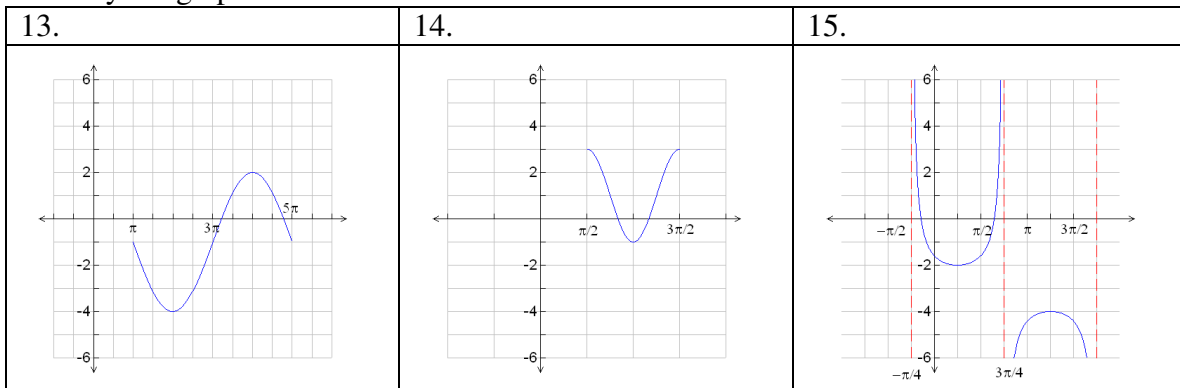
9)  $y = 7 \tan\left(\frac{1}{2}x\right) - 2$

10)  $y = 2 \csc\left(\frac{\pi}{2}(x-1)\right) + 3$

11)  $y = \sec\left(5\left(x + \frac{3\pi}{4}\right)\right) - \frac{1}{2}$

12)  $y = \cot\left(3\left(x + \frac{5\pi}{2}\right)\right)$

Identify the graph shown.



16. Graph  $y = \cos^{-1} x$ .

Evaluate without a calculator. Express your answer in radians.

17.  $\sin^{-1}\left(\frac{\sqrt{3}}{2}\right)$

18.  $\cos^{-1}(1)$

19.  $\tan^{-1}\left(-\frac{\sqrt{2}}{2}\right)$

20.  $\sin\left(\cos^{-1}\left(\frac{1}{\sqrt{5}}\right)\right)$

21.  $\cos^{-1}\left(\cos\frac{5\pi}{4}\right)$

22.  $\tan(\sin^{-1} x)$