

Name: _____

Graphs of Sine and Cosine Functions

1) Sketch the graph of each function

1) $y = 2 \sin x$

2) $y = \sin 2x$

3) $y = \sin(x/2)$

4) $y = 1 + \sin x$

5) $y = \cos x$

6) $y = \cos 3x$

7) $y = \cos(x + \pi/2)$

8) $y = 2 \sin x$

9) $y = 3 \cos 2x$

10) $y = 4 \sin(x/2)$

11) $y = \sin(x + \pi/6)$

12) $y = 2 \cos(x - \pi/6)$

13) $y = \sin(2x + \pi/4)$

14) $y = 5 \sin(3x + \pi/6)$

15) $y = 4 \sin(x - \pi) + 2$

16) $y = \sin\left(3x - \frac{\pi}{4}\right) + 1$

17) $y = 3 \sin \frac{x}{2} - 4$

18) $y = 2 \cos\left(\frac{\pi}{2}x - \frac{\pi}{3}\right) + 2$

19) $y = 2 \sin\left(x + \frac{\pi}{2}\right)$

20) $y = 3 \cos\left(2x - \frac{\pi}{3}\right) + 2$

21) $y = 1 - 2 \sin \frac{x\pi}{6}$

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

23) $y = 3 \cos \frac{2\pi x}{3} - 1$

2) Given the function $y = 4 \cos(2x - 3) + \pi$

- 1) What is its amplitude, A?
- 2) What is its period, T?
- 3) What is its frequency, f?
- 4) Is the function odd or even?