MATH 195

§ 5.3 TRIGONOMETRIC GRAPHS

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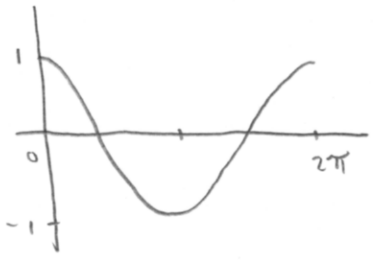
7/24/2016

1-5, 7, 11, 23, 25, 35, 37, 43, 47, 49, 51

1. $f(t)$, 2π, 1

$y = \sin x$



$y = \cos x$

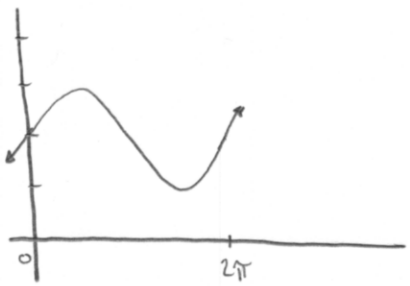
2. UPWARD, X-AXIS

3. a, $\frac{2\pi}{K}$, 3, π

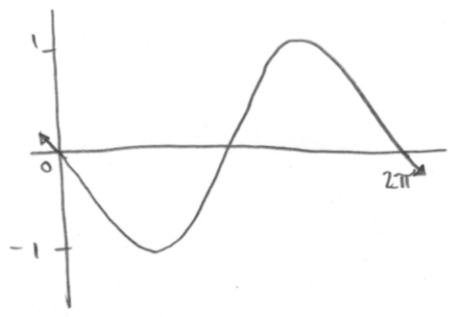
4. a, $\frac{2\pi}{K}$, b,

4, $\frac{2\pi}{3}$, $\frac{\pi}{6}$

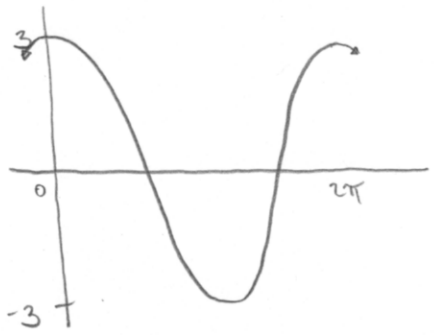
5. $f(x) = 2 + \sin x$



7. $f(x) = -\sin x$

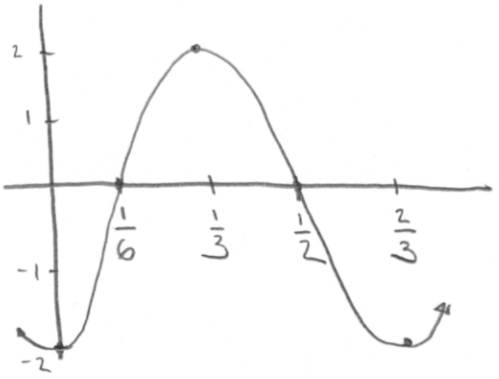


11. $g(x) = 3\cos x$

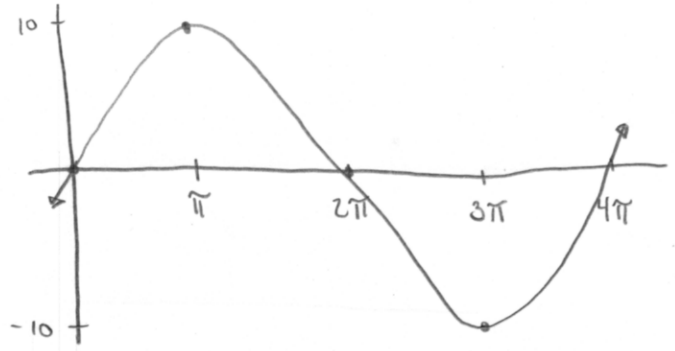


23. $y = -2\cos 3\pi x$

PERIOD $= \frac{2\pi}{3\pi} = 2/3$



25. $y = 10\sin\frac{1}{2}x$, PERIOD $= \frac{2\pi}{1/2} = 4\pi$

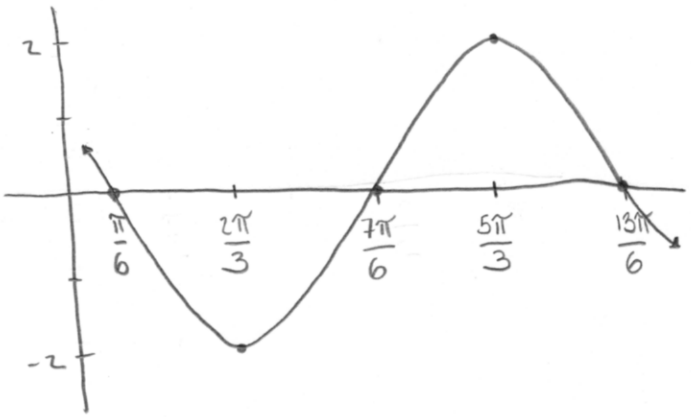


35. $y = -2\sin\left(x - \frac{\pi}{6}\right)$

AMPLITUDE: 2

PERIOD: 2π

HOR. SHIFT: $\frac{\pi}{6}$

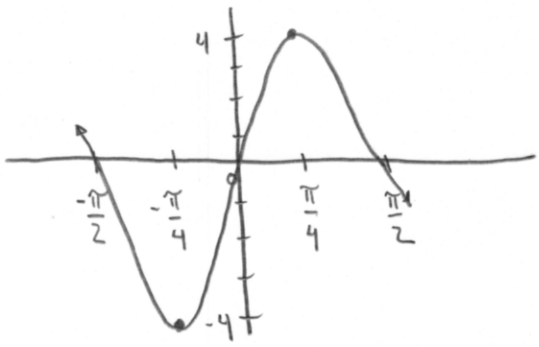


37. $y = -4\sin 2\left(x + \frac{\pi}{2}\right)$

AMPLITUDE: 4

PERIOD: π

HOR. SHIFT: $-\frac{\pi}{2}$

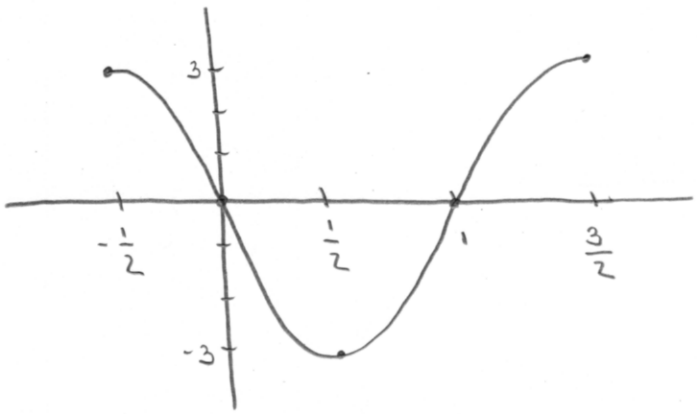


43. $y = 3\cos \pi (x + \frac{1}{2})$

AMPLITUDE : 3

PERIOD : 2

HOR. SHIFT : $-\frac{1}{2}$



47. (a) AMPLITUDE : 4

PERIOD : 2π

HOR. SHIFT. : NONE

(b) $y = 4 \sin x$

49. (a) AMPLITUDE : $\frac{3}{2}$

PERIOD : $\frac{2\pi}{3}$

HOR. SHIFT : NONE

(b) $y = \frac{3}{2} \cos 3x$

51. (a) AMPLITUDE : $\frac{1}{2}$

PERIOD : π

HOR SHIFT : $-\frac{\pi}{3}$

(b) $y = -\frac{1}{2} \cos 2(x + \frac{\pi}{3})$