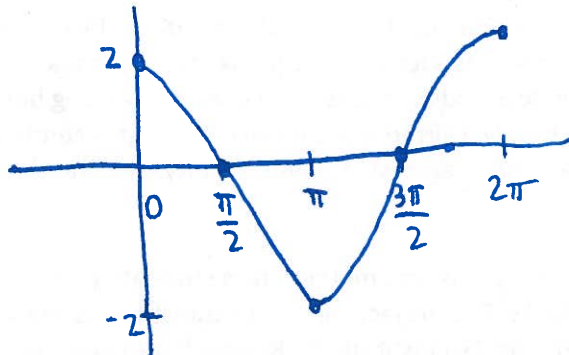
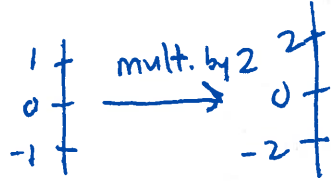


v. stretch — multiply y by 2

§8.1 #10 | Plot $f(x) = 2\cos(x)$

Soln: Anchor pts: $0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}, 2\pi$

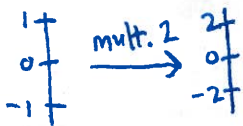


#18 | Plot $f(t) = 2\sin(t - \frac{5\pi}{6})$

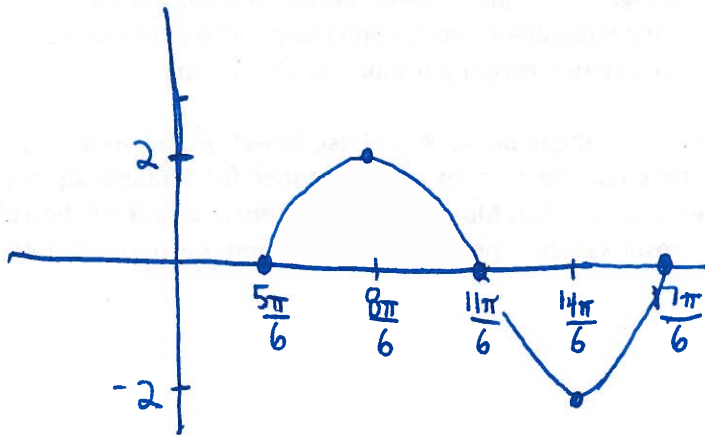
2nd mult. y by 2

1st add $\frac{5\pi}{6}$ to x-vals

Soln: Anchor pts: $0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}, 2\pi$



add $\frac{5\pi}{6}$
 $\frac{5\pi}{6}, \frac{8\pi}{6}, \frac{11\pi}{6}, \frac{14\pi}{6}, \frac{17\pi}{6}$



#20 | Plot $f(t) = 4\cos\left(2\left(t + \frac{\pi}{4}\right)\right) - 3$

Annotations:
 - 3rd: mult. 4 by 4
 - 2nd: divide x by 2
 - 1st: subtract $\frac{\pi}{4}$ from x
 - 4th: subtract 3 from y

(2)

Soln: Anchor pts: $0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}, 2\pi$

↓ subtract $\frac{\pi}{4}$

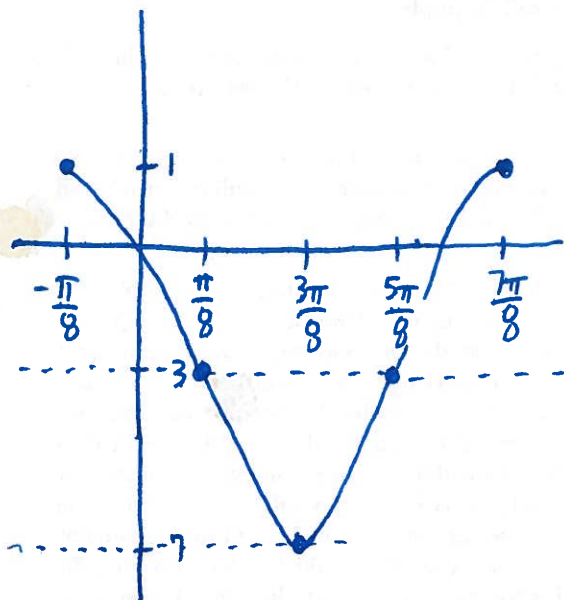
$-\frac{\pi}{4}, \frac{\pi}{4}, \frac{3\pi}{4}, \frac{5\pi}{4}, \frac{7\pi}{4}$

↓ divide by 2

$-\frac{\pi}{8}, \frac{\pi}{8}, \frac{3\pi}{8}, \frac{5\pi}{8}, \frac{7\pi}{8}$

Graph transformation steps:

1	→ mult by 4	4	→ subtr. 3	1
0	→	0	→	-3
-1		-4		-7



§8.2 #23 plot $p(x) = \tan(x - \frac{\pi}{2})$

3

Soln:

Anchor pts:

$-\frac{\pi}{2}, -\frac{\pi}{4}, 0, \frac{\pi}{4}, \frac{\pi}{2}$

↑ shift right by $\frac{\pi}{2}$

← asymptotes →

↓ shift right

$0, \frac{\pi}{4}, \frac{\pi}{2}, \frac{3\pi}{4}, \pi$

