Ex: Plot $y = 3\tan\left(x - \frac{\pi}{4}\right) + 2$

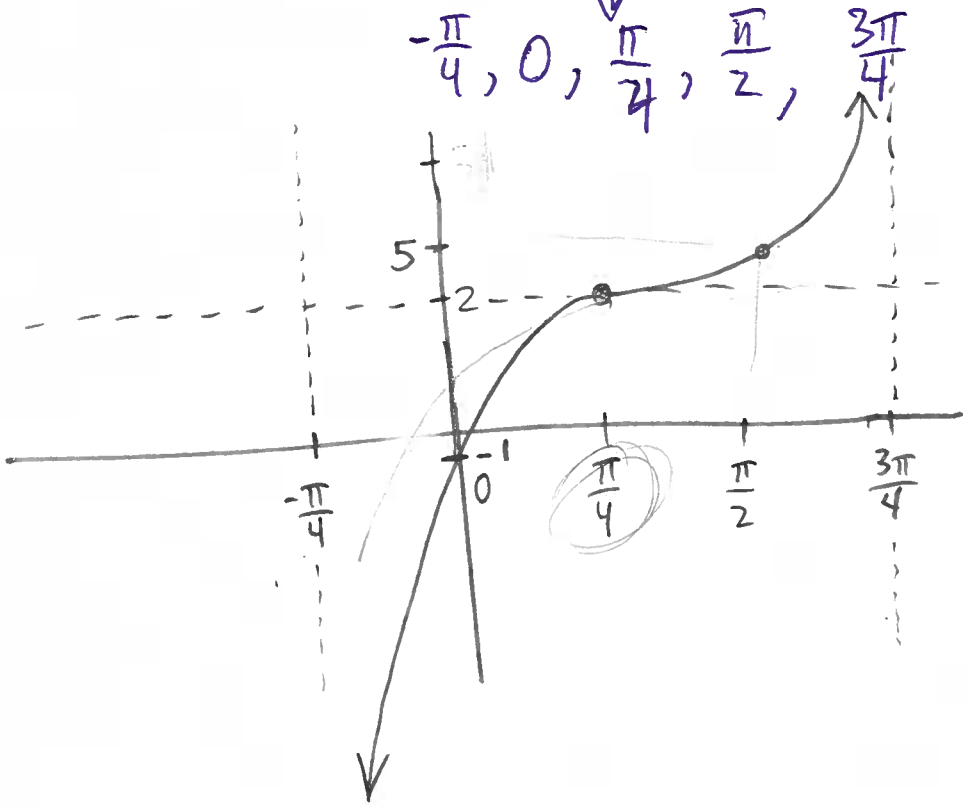
- 3: v. str mult. y-vals by 3 (2nd)
- $-\frac{\pi}{4}$: h. shift right add $\frac{\pi}{4}$ to x-vals (1st)
- +2: v. shift up add 2 to y-vals (3rd)

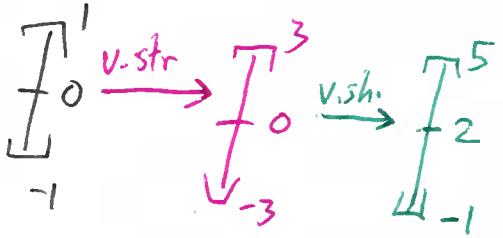
$\frac{\pi}{2} + \frac{\pi}{4} = \frac{2\pi}{4} + \frac{\pi}{4}$

Anchor pts: $-\frac{\pi}{2}, -\frac{\pi}{4}, 0, \frac{\pi}{4}, \frac{\pi}{2}$

$\downarrow$

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

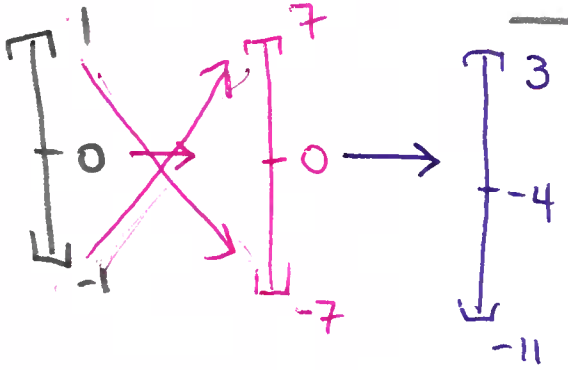


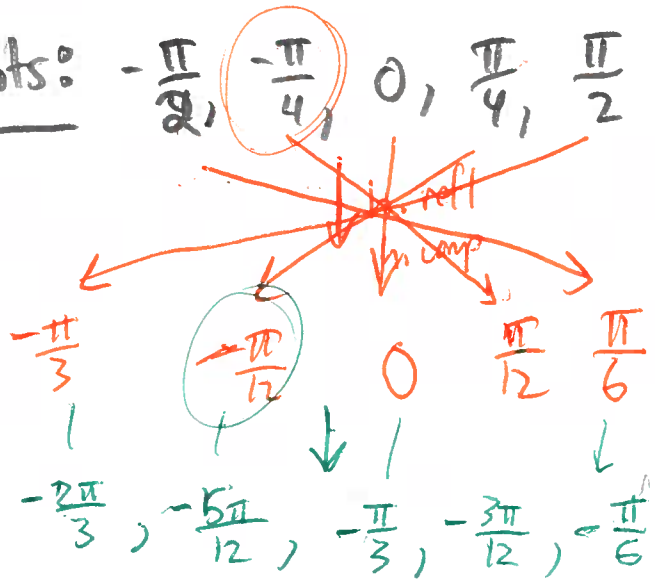


Ex: Plot $y = -7\tan(-3(x+\frac{\pi}{3})) - 4$

- -7: v. refl, +v. str, mult. y-vals by -7 — 3rd
- -3: h. refl, h. comp, divides x-vals by -3 — 1st
- $+\frac{\pi}{3}$: h. shift left, subtr $\frac{\pi}{3}$ from x-vals — 2nd
- -4: v. shift down, subtract 4 from y-vals — 4th

Anchor pts: $-\frac{\pi}{2}, -\frac{\pi}{4}, 0, \frac{\pi}{4}, \frac{\pi}{2}$



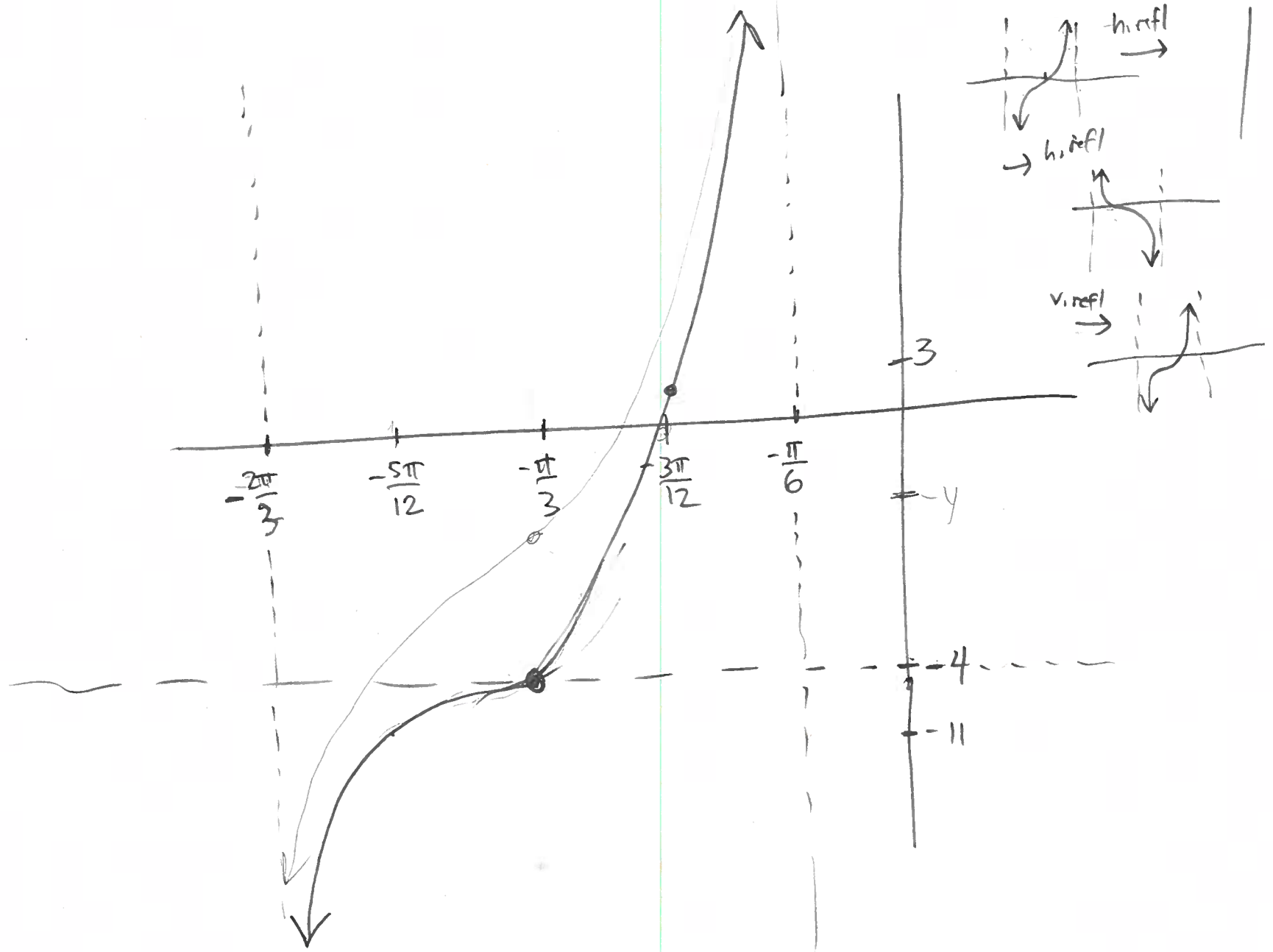


$-\frac{\pi}{12} - \frac{\pi}{3} = -\frac{\pi}{12} - \frac{4\pi}{12}$

$= -\frac{5\pi}{12}$

$\frac{\pi}{12} - \frac{\pi}{3} = \frac{\pi}{12} - \frac{4\pi}{12} = -\frac{3\pi}{12}$

$\frac{\pi}{6} - \frac{\pi}{3} = \frac{\pi}{6} - \frac{2\pi}{6}$


h. refl
h. refl
v. refl
3
y
4
11
$-\frac{2\pi}{3}$
$-\frac{5\pi}{12}$
$-\frac{\pi}{3}$
$-\frac{3\pi}{12}$
$-\frac{\pi}{6}$