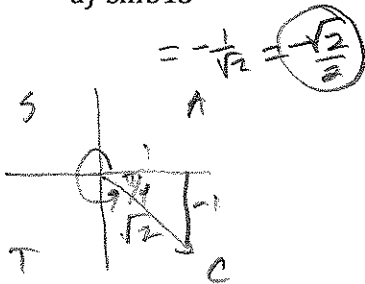


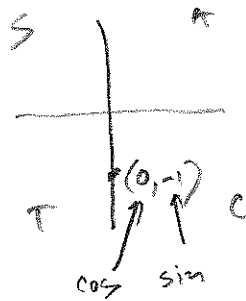
Section 4.5 (with a little 4.4) Day 3 Homework

1. Evaluate the following (it may help to draw a picture).

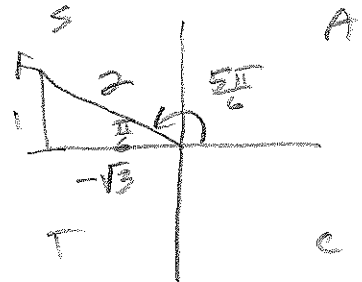
a) $\sin 315^\circ$



b) $\cos(-90^\circ) = 0$

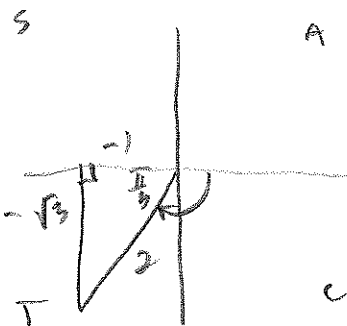


c) $\tan \frac{5\pi}{6} = -\frac{1}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$

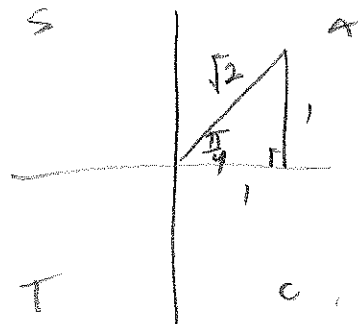


2. Evaluate the following (it may help to draw a picture).

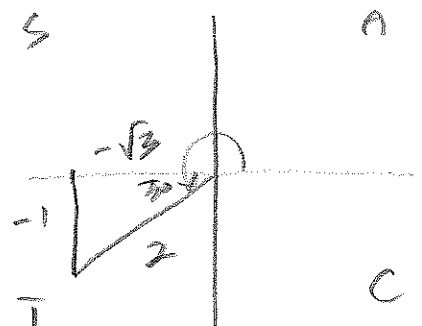
a) $\sec \frac{-2\pi}{3} = -2$



b) $\csc \frac{\pi}{4} = \sqrt{2}$



c) $\cot(-210^\circ) = \sqrt{3}$



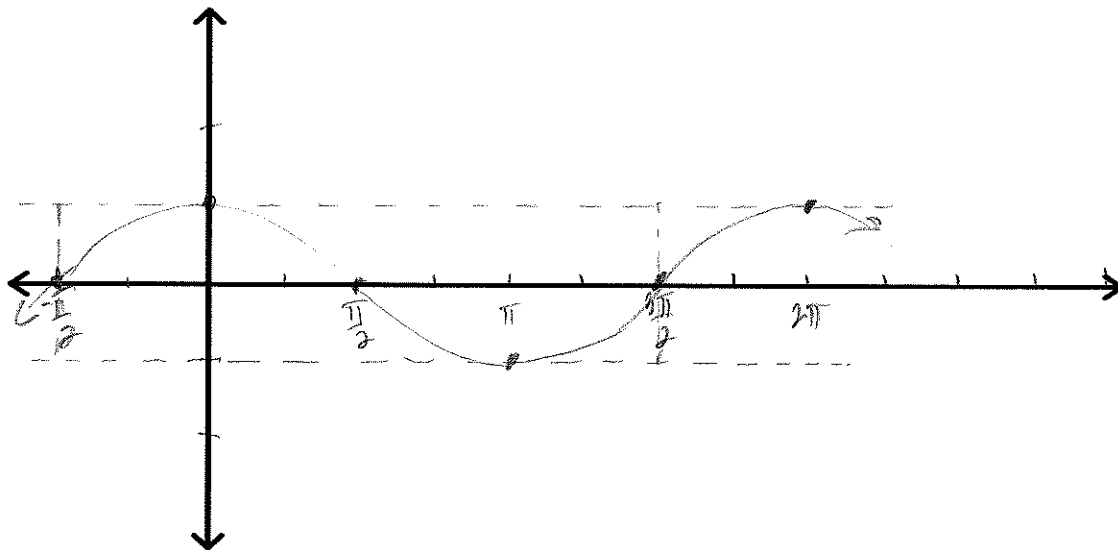
Section 4.5 (with a little 4.4) Day 3 Homework

Graph at least one period of the following, or from 0 to 2π

3. $y = \frac{1}{2} \sin\left(x + \frac{\pi}{2}\right)$

amp

shift left

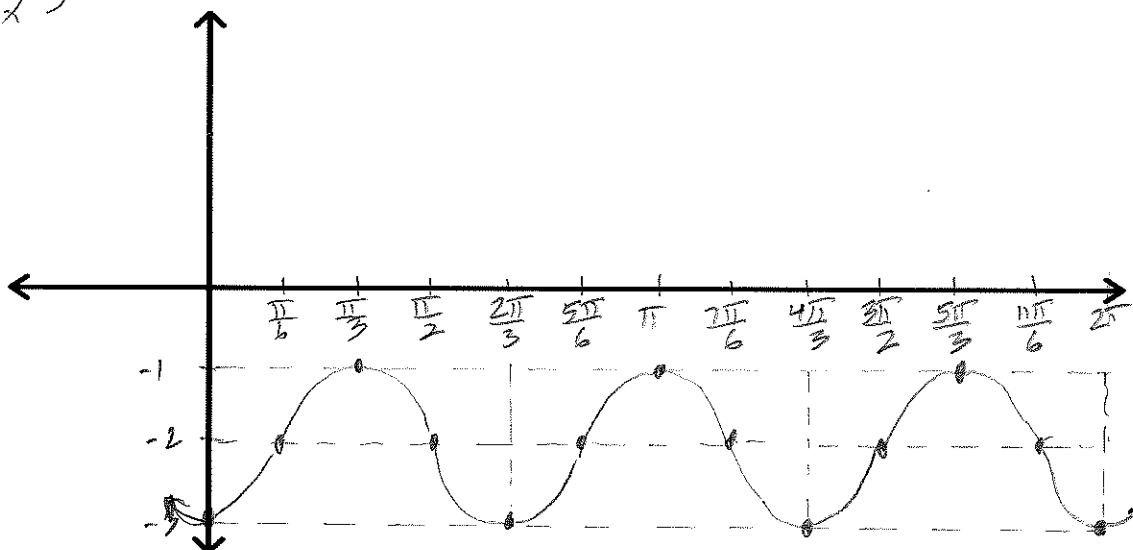


4. $y = -\cos 3x - 2$

reflect over x

Period = $\frac{2\pi}{3}$
shift down 2

$\frac{2\pi}{3} \cdot \frac{1}{4} = \text{critical pts every } \frac{\pi}{6}$



Section 4.5 (with a little 4.4) Day 3 Homework

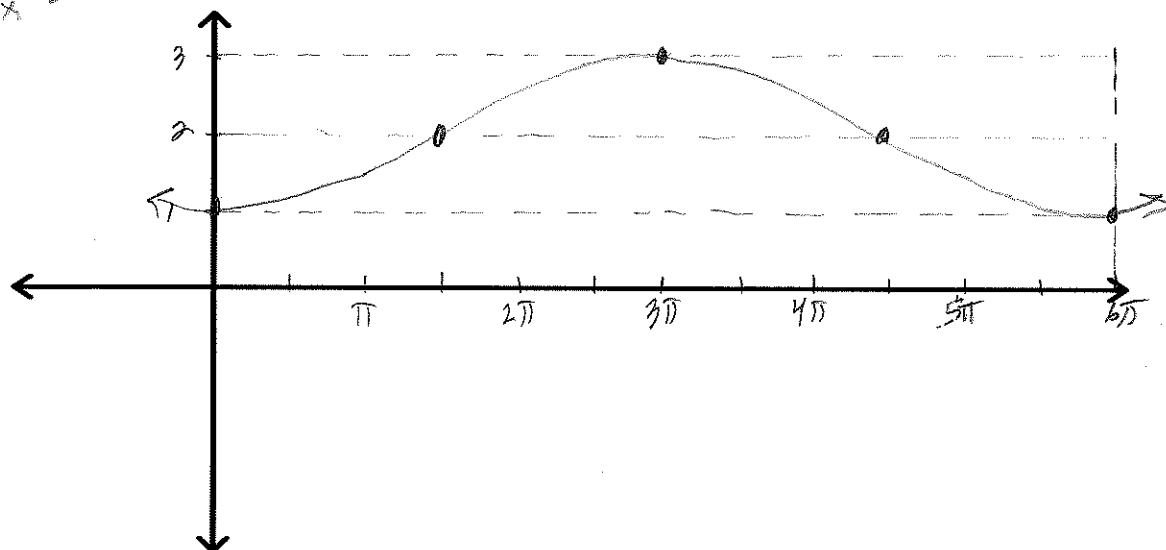
Graph at least one period of the following, or from 0 to 2π

5. $y = -\cos \frac{1}{3}x + 2$

Reflect over x

Period = $\frac{2\pi}{\frac{1}{3}} = 6\pi$

$\frac{6\pi}{4} = \text{critical pt every } \frac{3\pi}{2}$

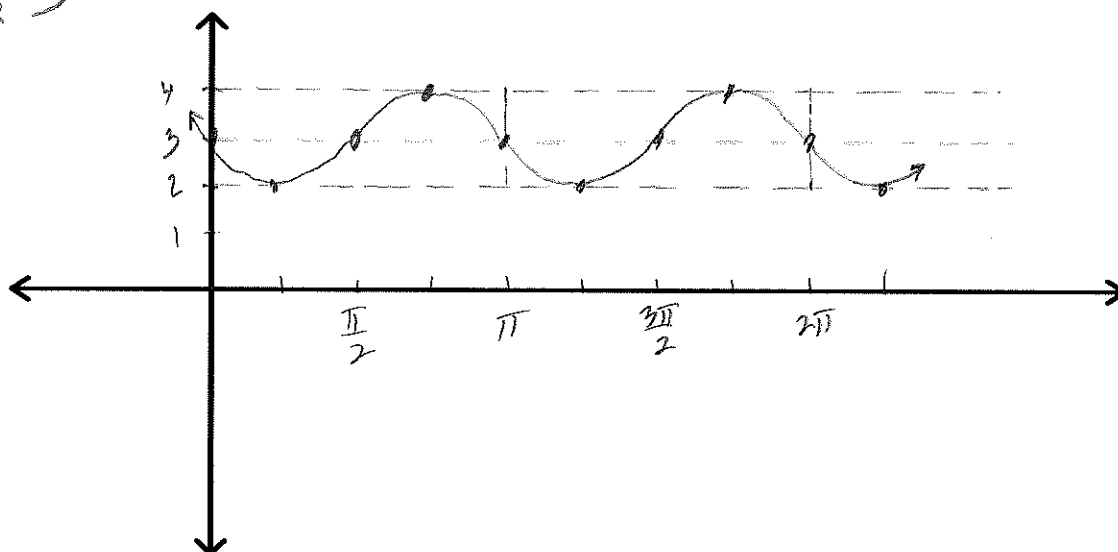


6. $y = -\sin 2x + 3$

Reflect over x

Period = $\frac{2\pi}{2} = \pi$

$\pi \cdot \frac{1}{4} = \text{critical pt every } \frac{\pi}{4}$



Section 4.5 (with a little 4.4) Day 3 Homework

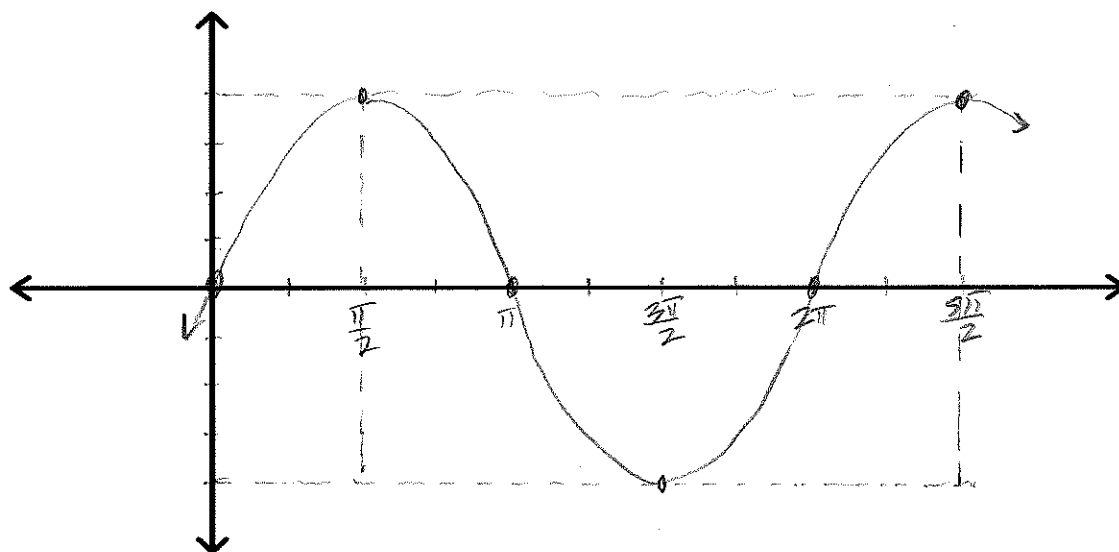
Graph at least one period of the following, or from 0 to 2π

7. $y = 4\cos\left(x - \frac{\pi}{2}\right)$

ampl

← shift right $\frac{\pi}{2}$

$2\pi \cdot \frac{1}{4} = \text{critical pt every } \frac{\pi}{2}$

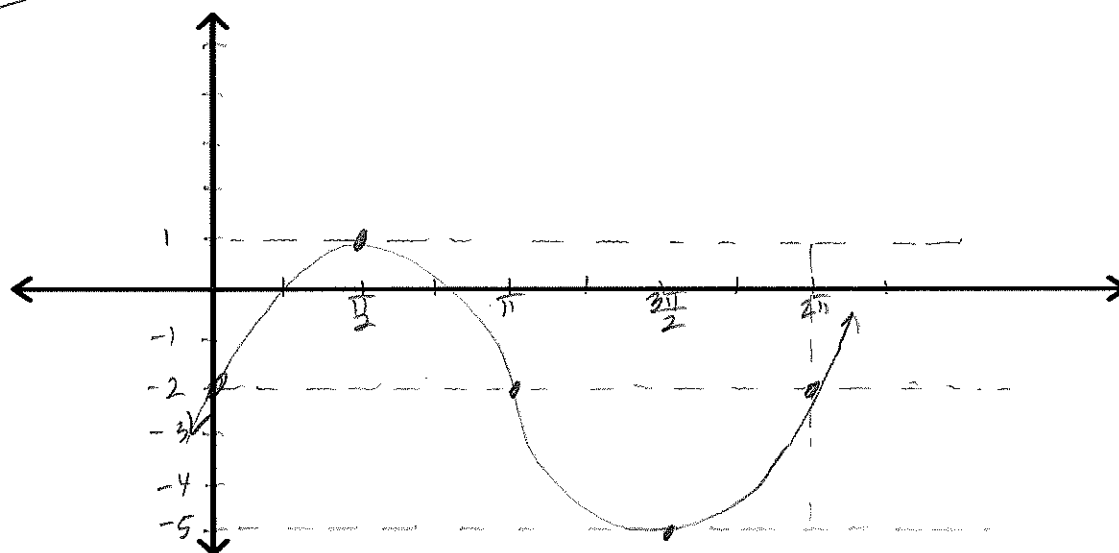


8. $y = 3\sin x - 2$

ampl

← shift down 2

$2\pi \cdot \frac{1}{4} = \text{critical pt every } \frac{\pi}{2}$



Section 4.5 (with a little 4.4) Day 3 Homework

9. $y = -\frac{1}{2} \cos\left(x + \frac{\pi}{3}\right)$

reflect over x
ampl

shift left $\frac{\pi}{3}$

$2\pi \cdot \frac{1}{4} = \text{critical pt every } \frac{\pi}{2}$
($\frac{3\pi}{6}$)

