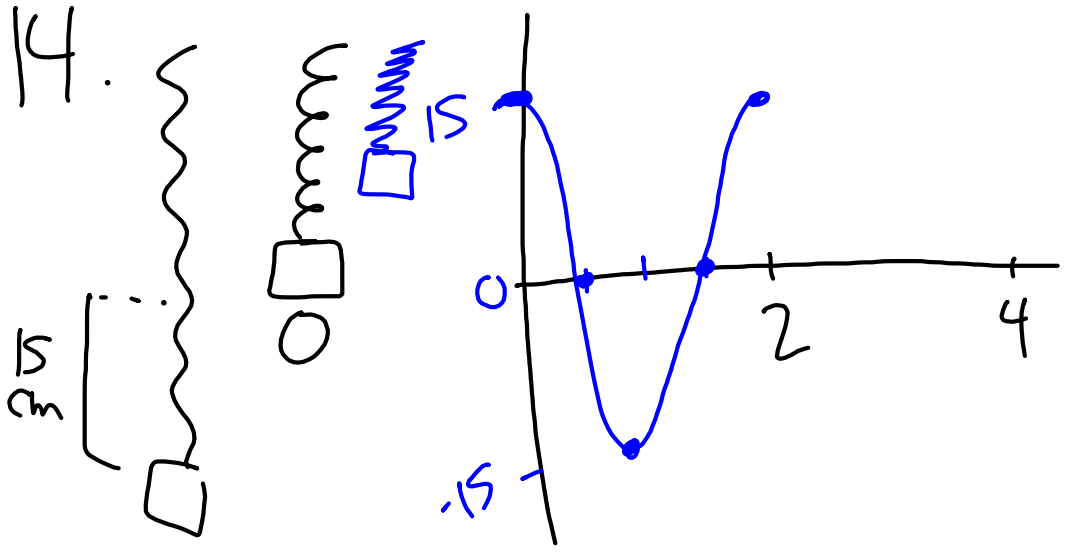
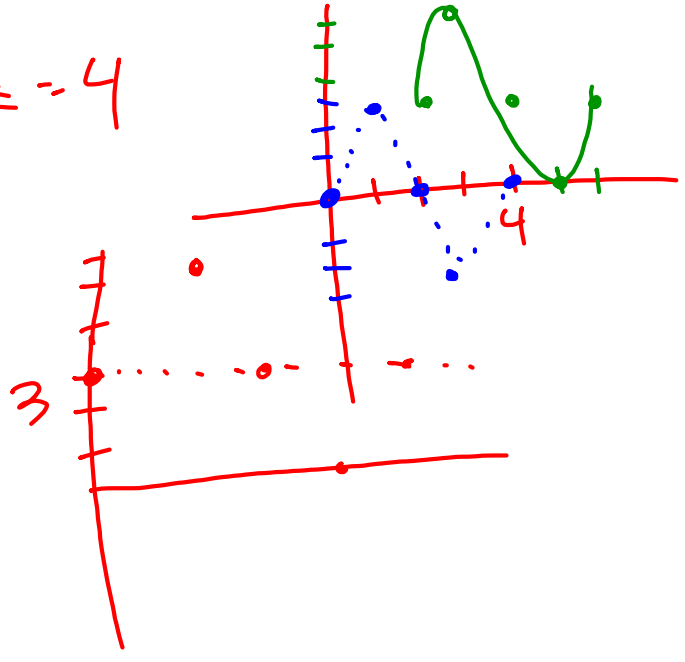
14.



4. $3\sin\frac{\pi}{2}(x-2)+3$ up 3, R 2

$P = \frac{2\pi}{\frac{\pi}{2}} = \frac{2\pi}{1}\cdot\frac{2}{\pi} = 4$

$A = 3$



CHANGE

1. $\cos\theta = -\frac{\sqrt{2}}{2}$

2. $\sec\theta = \frac{-2}{\sqrt{2}}$

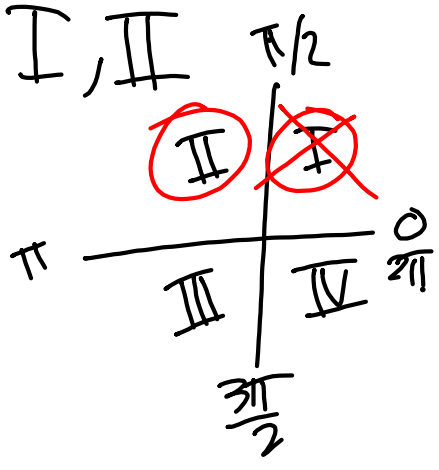
31. $\sin(\theta+\pi)-3$

34. $3\cos\left(\frac{\theta}{2}\right)-1$

1. $\cos\theta = -\frac{\sqrt{2}}{2} \therefore \boxed{\frac{3\pi}{4}}$

I, II

(os, sin) tan



5. $\csc \frac{5\pi}{4} = \boxed{-\frac{2}{\sqrt{2}}}$

$\sin \frac{5\pi}{4} = -\frac{\sqrt{2}}{2}$

reference angle:

$\pi/6, \pi/4, \pi/3, \pi/2$

$30°, 45°, 60°, 90°$

co-terminal

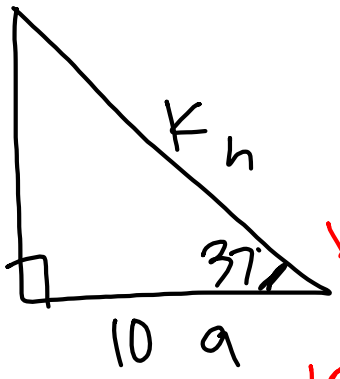
deg: pos $\theta + 360°$

neg $\theta - 360°$

rad: pos $\theta + 2\pi$

neg $\theta - 2\pi$

16.



SOH CAH TOA

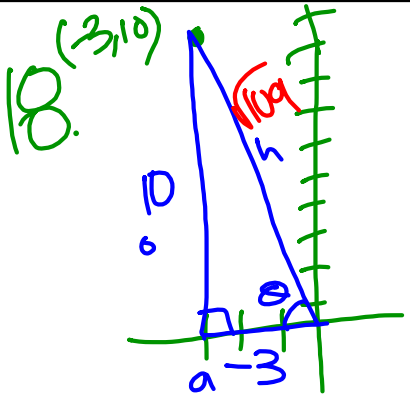
$K \cdot \cos 37° = \frac{10}{K}$ calc

$\frac{K \cdot \cos 37°}{\cos 37°} = \frac{10}{\cos 37°}$

$K = 12.52$

DEG MODE.

18. (-3, 10)



$\cos\theta = \frac{a}{h} = \frac{-3}{\sqrt{109}}$

$a^2 + b^2 = c^2 \rightarrow$ hyp

$10^2 + (-3)^2 = c^2$

$100 + 9 = c^2$

$\sqrt{109} = \sqrt{c^2}$

$\sqrt{109} = c$

21-26:

π 180°

θ deg $\cdot \frac{\pi}{180^\circ}$

θ rad $\cdot \frac{180^\circ}{\pi}$

28. $f(x) = -3\sin(\theta - 4) + 1$

reflects.

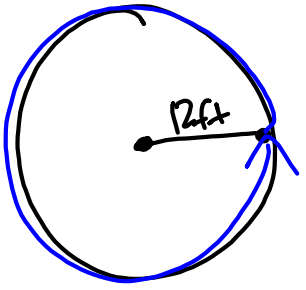
amp: 3

Phase S. (R or L) Right 4

period: $\frac{2\pi}{1} = 2\pi$

vertical S: up 1

35.



8 sec → 1 rev

$C = 2\pi r$

$\frac{ft}{sec} = \frac{2 \cdot \pi \cdot 12}{8} = \frac{24\pi}{8}$

calc

9.4 ft/sec

36