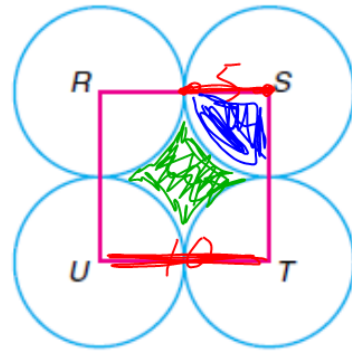
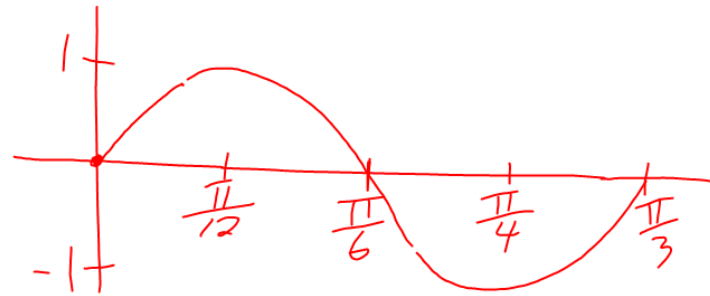


(22)  $y = \sin 6\theta$   $K = 6$   
 Period =  $\frac{2\pi}{6} = \frac{\pi}{3}$



$A_{sq.} = 100$

$A_{circle} = \pi (5)^2 = 25\pi$   
 $\times 4$   
 $\hline 100\pi$

$100 - 25\pi =$

---

(54) Ampl = 15  $\cosine$  Freq = 36 Hz

$y = A \cos K\theta$

$y = \pm 15 \cos(72\pi t)$   $\frac{1}{36} \times \frac{2\pi}{K}$

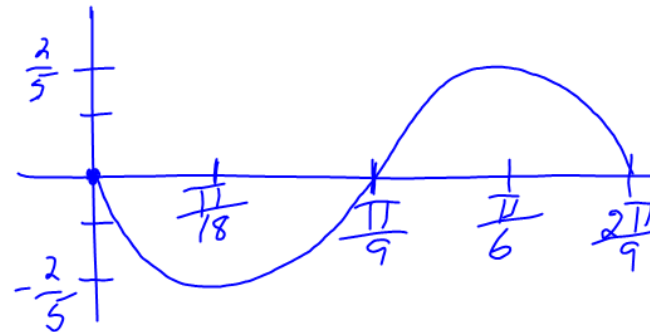
$y = \pm 15 \cos(72\pi \times t)$   $K = 72\pi$

(25)  $y = -\frac{2}{5} \sin 9\theta$        $A = -\frac{2}{5}$

$K = 9$

$\text{Ampl} = \frac{2}{5}$

$\text{Per} = \frac{2\pi}{9}$

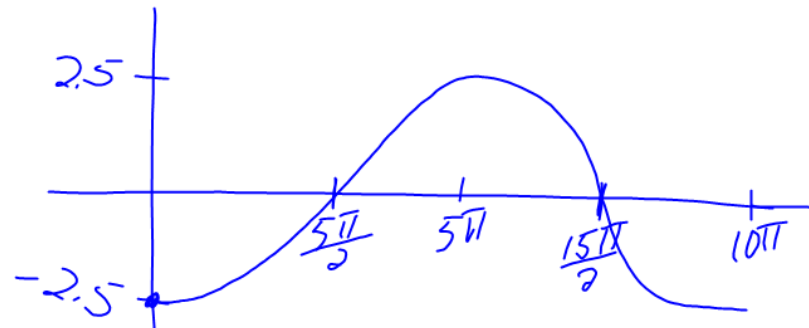


(34)  $y = -2.5 \cos \frac{\theta}{5}$        $A = -2.5$

$K = \frac{1}{5}$

$\text{Ampl} = 2.5$

$\text{Period} = \frac{2\pi}{\frac{1}{5}} = 2\pi \cdot \frac{5}{1} = 10\pi$



$$y = A \sin(k\theta - c) + h$$

$$y = A \cos(k\theta - c) + h$$

$$\underset{A}{2} \cos \underset{k}{1}\theta - \underset{\substack{\downarrow \\ h}}{5}$$

**State the vertical shift and the equation of the midline for the function  $y = 2 \cos \theta - 5$ . Then graph the function.**

$$A = 2$$

$$h = -5$$