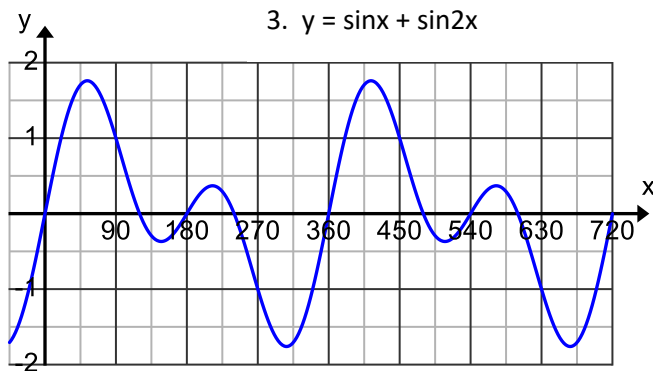
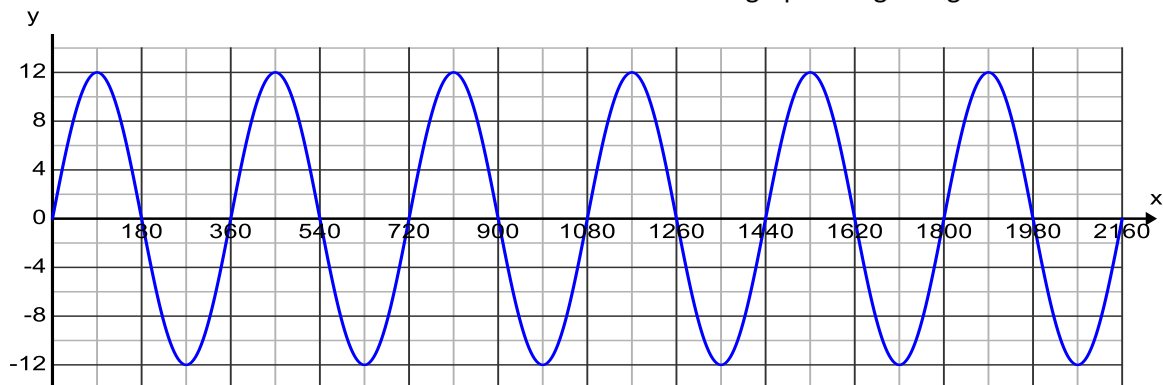


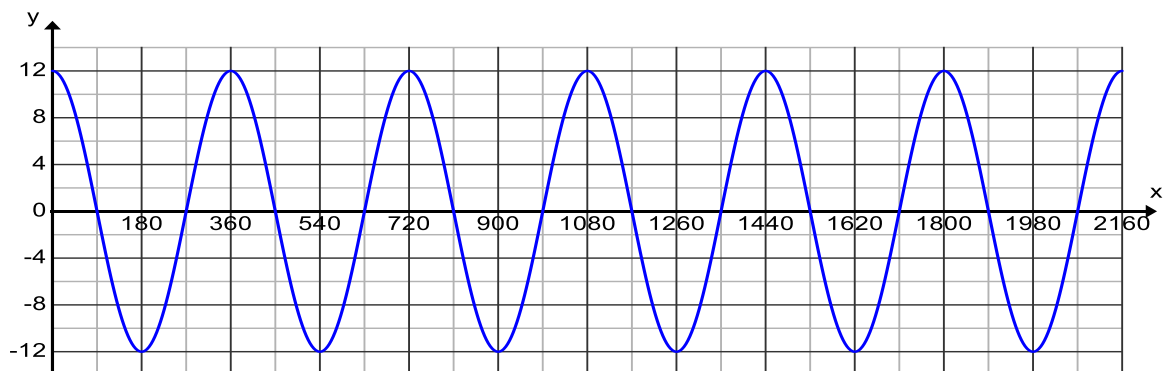
## Unit 6 lesson 2 homework handout Graphing Trig Functions solutions part 2.



4(a)  $y = 12 \sin x$       72 hours / 12 hours per cycle = 6 cycles      Graph begins at 3:00  
 You would have a cosine graph if beginning at 12:00



4(b)  $y = 12 \cos x$       Graph begins at 3:00      You would have a sine graph if beginning at 12:00



4 (c) 72 hours / 12 hours per cycle = 6 cycles

(d)  $(72 \text{ hours} \times 60 \text{ minutes/hour}) / (60 \text{ minutes per cycle}) = 72 \text{ cycles}$

5(a) Y-int set  $x = 0^\circ$ 

$$Y = \sin 0^\circ + \cos 0^\circ$$

$$Y = 1$$

(b) x-int set  $y = 0$ 

$$\sin x + \cos x = 0$$

 $\sin x = -\cos x$  (Related acute angle  $45^\circ$  in quadrants where cosine and sine are opposite signs)

$$x = 135^\circ \text{ or } 315^\circ \text{ (in the first cycle.)}$$

