

MATH 133 – Calculus with Fundamentals 1  
More Practice on Sinusoids – September 18, 2017

*Suggestion*

Try at least a few of the following problems *before* consulting the solutions that will be posted on the course homepage.

I. Plot each of the following sinusoid graphs by determining the amplitude, period, and vertical shift:

(A)  $y = 4 \sin(10x) - 1$ . Show the portion of the graph between  $x = 0$  and  $x = 2\pi/5$ .

(B)  $y = 2 \cos(\pi x) + 2$ . Show the portion of the graph between  $x = 0$  and  $x = 4$ .

(C)  $y = -3 \sin(x) + 4$ . Show the portion of the graph between  $x = -2\pi$  and  $x = 2\pi$ .

II. Find possible formulas for each of the following sinusoidal graphs (starting on back):

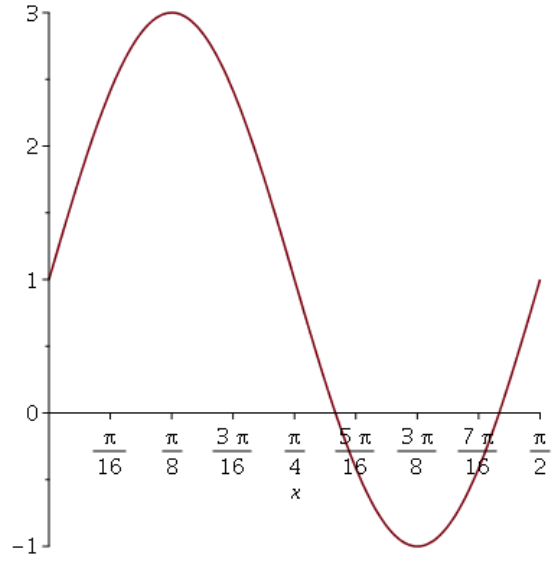


Figure 1: Sinusoid (A)

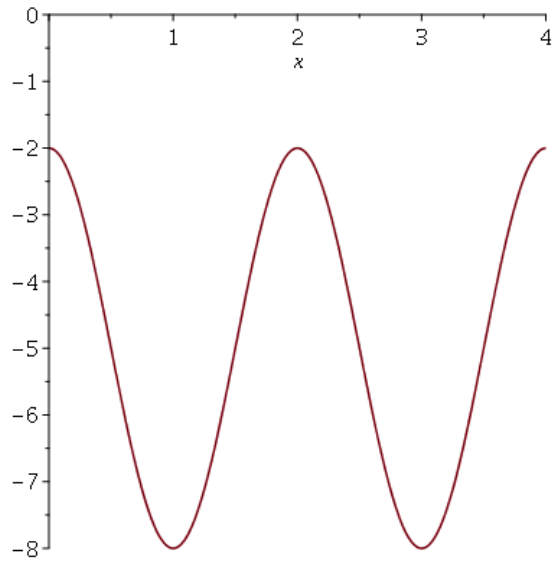


Figure 2: Sinusoid (B)

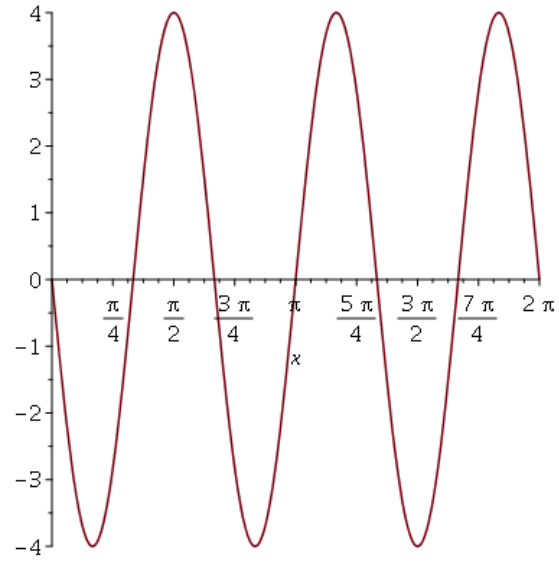


Figure 3: Sinusoid (C)

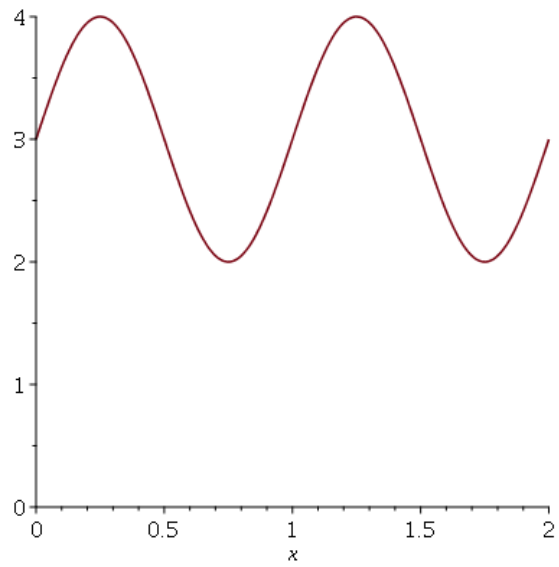


Figure 4: Sinusoid (D)

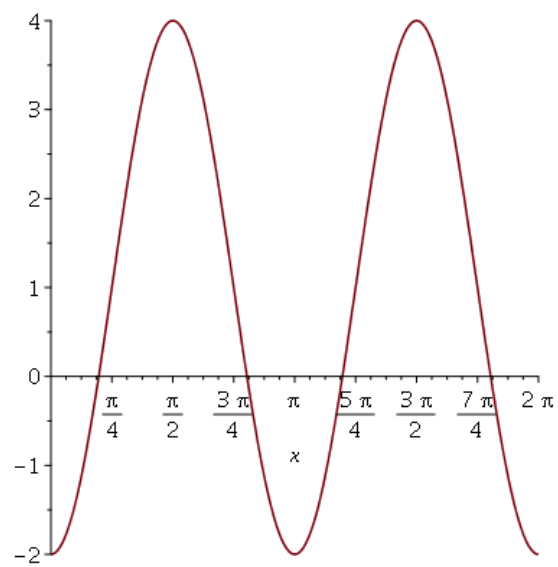


Figure 5: Sinusoid (E) – more challenging(!)