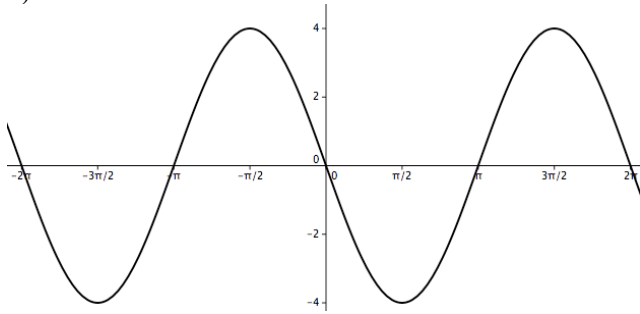


**Precalculus**  
**Unit 2 Quiz #1 Practice Problems**

Name: \_\_\_\_\_

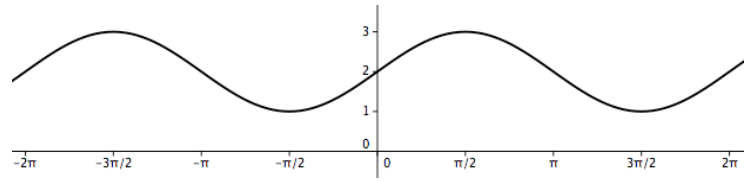
1. Write the equation for each function graphed in the space below the graph.

a)



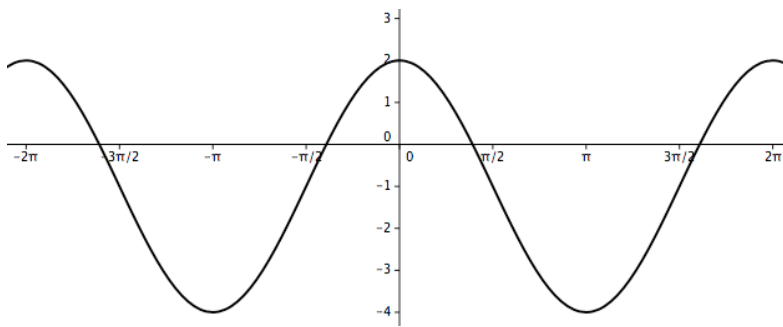
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b)



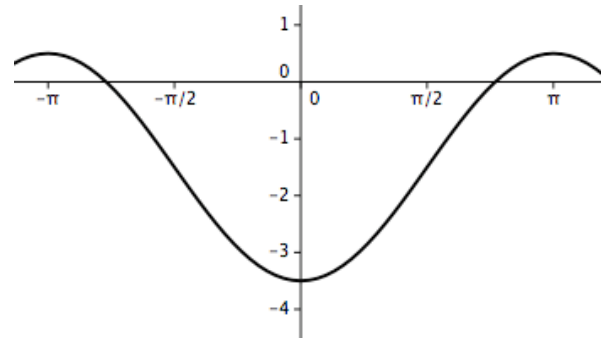
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c)



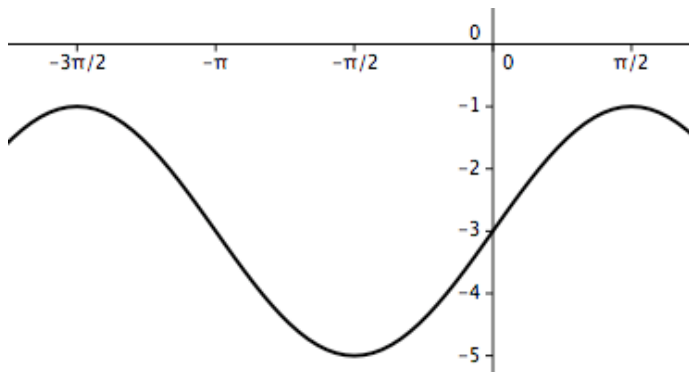
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d)



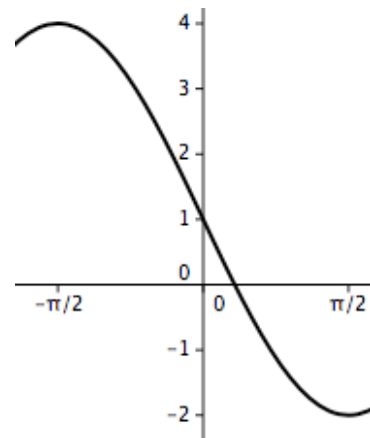
\_\_\_\_\_

e)



\_\_\_\_\_

f)



\_\_\_\_\_

2. A sinusoidal graph (only “involving”  $a$  and  $d$ ) has a maximum  $y$ -value of 43 and a minimum  $y$ -value of -19.

a) Show how you can find the axis of oscillation without graphing.

b) Show how you can find the amplitude without graphing.

c) How many sinusoidal functions (only “involving”  $a$  and  $d$ ) will fit the given information? Write their equations.

d) If you are also given that the point  $(0,12)$  is on the graph, now how many functions are there? Write their equations.

3. For each function:

i) Plot the key points

ii) Then connect them with a sinusoidal function

a)  $y = -2 \cos x + 1$

b)  $y = -2 \sin x - 3$

c)  $y = \cos x + 4$