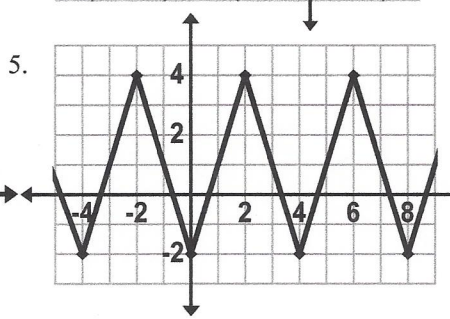
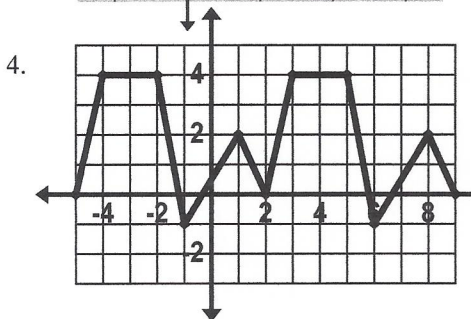
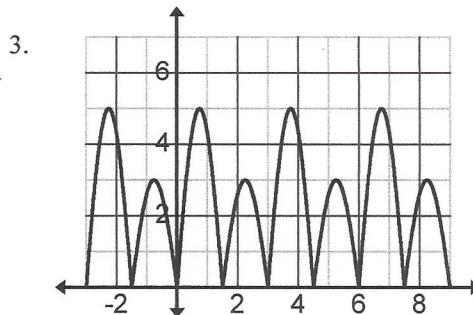
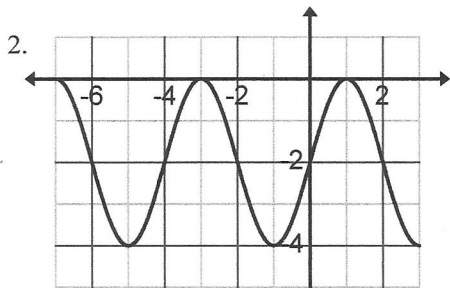
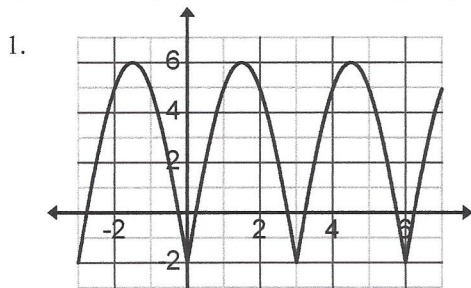


Algebra 2CP  
Trig Unit 9 Worksheet

For each of the five graphs below a) draw one cycle b) find the period c) write the equation of the center line axis d) find the amplitude e) find the frequency



6. Redraw Graph 1 with a vertical translation of  $-2$ .

8. Redraw Graph 3 with a horizontal translation of  $2$ .

7. Redraw Graph 2 with a period that is doubled.

9. Redraw Graph 3 with a period that is cut in half.

10. For each of the following, find the domain values  $0^\circ < x < 360^\circ$  for which the graph of

a)  $y = \sin(x)$  decreases from 1 to 0

b)  $y = \cos(x)$  decreases from 1 to 0

c)  $y = \sin(x)$  increases from  $-1$  to 0

d)  $y = \cos(x)$  increases from  $-1$  to 0

e)  $y = \sin(x)$  increases from 0 to 1

f)  $y = \cos(x)$  increases from 0 to 1

g)  $y = \sin(x)$  decreases from 0 to  $-1$

h)  $y = \cos(x)$  decreases from 0 to  $-1$

11. Tell whether each of the following statements describes a characteristic of the sine function, the cosine function, both functions or neither function.

a) The function increases throughout the interval  $180^\circ < x < 360^\circ$ .

b) The domain of the function is all real numbers.

c) The graph crosses the  $x$ -axis at multiples of  $180^\circ$ .

d) The amplitude of the function is  $-1$ .

e) The function has a period of  $180^\circ$ .

f) The function passes through  $(0, 1)$ .

g) The function is increasing on the interval  $0^\circ < x < 90^\circ$ .

h) The center line axis of the function is  $y = 0$ .

i) The maximum value is 1.

j) The range of the function is  $-1 \leq y \leq 1$ .