Homework #50 **Answers**

From Houghton-Mifflin 3rd Edition

p351-352:
11b) 315°
13b) 45°
14b) 330°
15b) 0°
19a) -48.59° = 311.41°
19b) 134.43°
20a) -80.54° = 279.46°
20b) 86.82°

32) -0.3
34) 3π

p331:
63) Because the size of the range is 8 ($0 \le x \le 8$), a = 4. The graph has had a vertical shift of 4 up so d = 4.
67) Since the range is $-3 \le x \le 3$ the amplitude is 3 and because the graph starts down a = -3. There are 2 full curves from 0 to 2π, therefore b = 2. There is no phase shift so c = 0.
An alternative answer would be a = 3, b = 2, and c = $\pi/2$. The horizontal shift to the right can be taken into account instead of the graph having the negative a value.