NAME ______ PERIOD ______

BOOK WORK: p. 939 (27 – 55 odd, 61 – 65 odd, 66 – 68)

Isabelle and Karl agreed to meet at the rotating restaurant at the top of a tower in the town center. The restaurant makes one full rotation each hour.

1. Isabelle waits for Karl, who arrives 30 minutes later. Through how many degrees does the restaurant rotate between the time that Isabelle arrives and the time that Karl arrives?

2. Since the restaurant is busy, they don't get menus for another ten minutes. How much farther has the restaurant rotated?

3. By the time they are served dinner, the restaurant has rotated to an angle 30° short of its orientation when Isabelle arrived.

a. Write an expression for the length of time that Isabelle has been there.

b. How long has she been there?

_____ c. How long has Karl been there?

d. How far has the restaurant rotated since Karl arrived?

HONORS ALGEBRA 2 WS 13 2 NAME	DATE	PERIOD
4. When their bill comes, it includes a note that the restaur	ant has rotated 840° since Isabelle a	rrived.
a. How long has it been since they were served	l dinner?	
b. How many rotations has the restaurant mac	le since Isabelle arrived?	
c. How far is the restaurant from its orientation	n when Karl arrived?	
5. On their way out, they stop and look at a map. A museun coordinates (3, 2).	n is located at a point northeast of th	ne tower with
a. Write the trigonometric function for the ang due north from the tower.	gle that the line from the tower to th	e museum with a line
b. Isabelle says that the museum is exactly the museum than the tower?	y 4 kilometers from the tower. How	much farther north is
An advertisement on a kiosk near the bus stop rotates th 6. What is the difference in the orientation of the advertisement between when Aaron arrived at the bus stop and when the bus came? A 45° B 90° C 315° D 405°	rough 765° while Aaron waits for hi 7. If the advertisement ro rotation every 10 minutes Aaron wait for his bus? F Less than 2 min G Between 2 min and 10 H Between 10 min and 20 J More than 20 min	s bus. tates at a rate of one s, how long does min) min