Port Townsend $

(h) When will the Seattle sales price be double the Port Townsend sales price? (Round your answer to to the nearest whole number.)

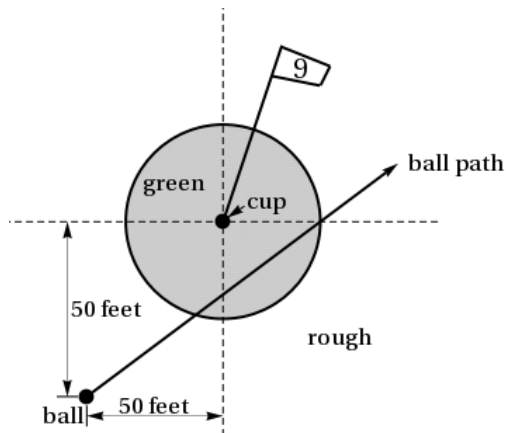(i) Is the Port Townsend sales price ever double the Seattle sales price?

Yes

No

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4. ⊕ **0/5 points**   -

The cup on the 9th hole of a golf course is located dead center in the middle of a circular green that is 90 feet in diameter. Your ball is located as in the picture below:

The ball follows a straight line path and exits the green at the right-most edge. Assume the ball travels a constant rate of 10 ft/sec. (Let the coordinates of the cup be $(x, y) = (0, 0)$.)

(a) Where does the ball enter the green? (Round your answer to four decimal places.)

$(x, y) = \left(\ \boxed{}\ \right)$

(b) When does the ball enter the green? (Round your answer to two decimal places.)

_____ sec

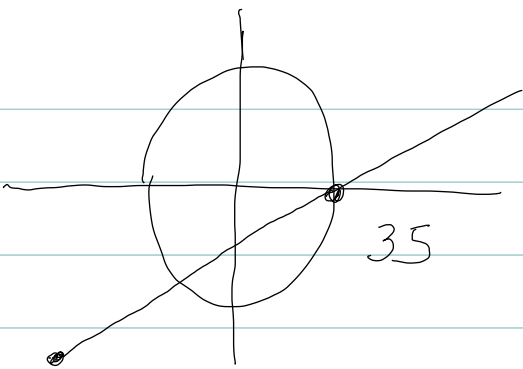(c) How long does the ball spend inside the green? (Round your answer to two decimal places.)

_____ sec

(d) Where is the ball located when it is closest to the cup? (Round your answer to four decimal places.)
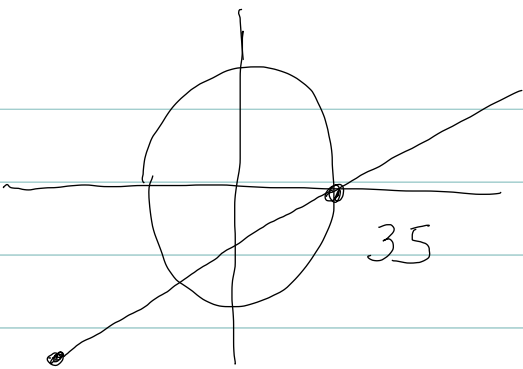
$(x, y) = \left(\ \boxed{}\ \right)$

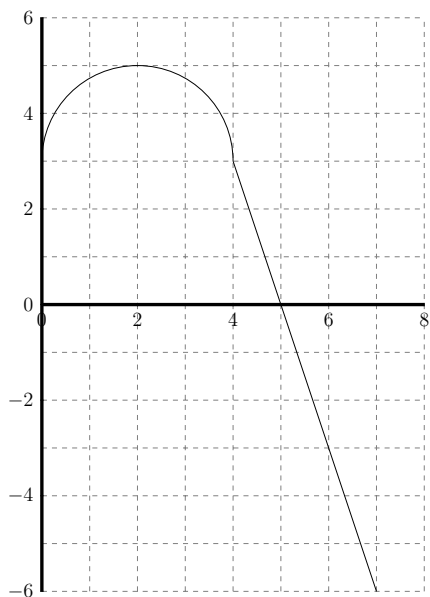When is the ball closest to the cup? (Round your answer to two decimal places.)

_____ sec

35

(-40, -50)

35

(-40, -50)

1. Below you are given the graph of a function $f(x)$, defined for $0 \le x \le 7$. The graph consists of a semicircle and a straight line, joined at the point (4,3).

(a) Write a formula for $f(x)$.

(b) Find all solutions of $|f(x)| = 4$

2

1. Your heating system starts at 6 am when the temperature inside your house is 63F; at 6:36 am the temperature has reached 67 F. Assuming that the temperature rises linearly, when does the temperature inside your house reach 69 F ? Give your answer in minutes after 6 am (for example 45 minutes after 6 am)

A salesman wants to sell a new furnace. He tells you that if the temperature inside your house is 63F at 6:00 am, then it reaches a maximum of 72F in 30 minutes. Assume the temperature in the house can be modelled by a quadratic function until it reaches 72F, and then it stays constant. When does the temperature in your house reach 69 F ? Let $t = 0$ correspond to 6:00 am and give your answer in minutes after 6:00 am. Write a formula for a function $f(t)$ that gives the temperature of your houes t hourse after 6:00 am.