

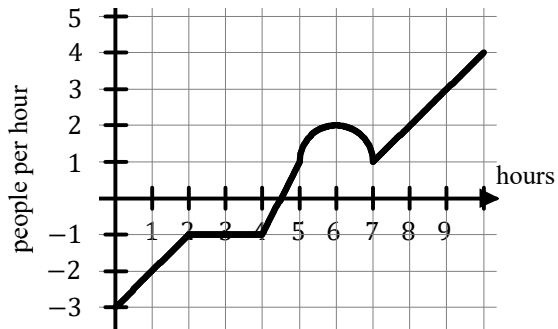
6.1 Accumulation of Change

CA #2

Calculus

Name: _____

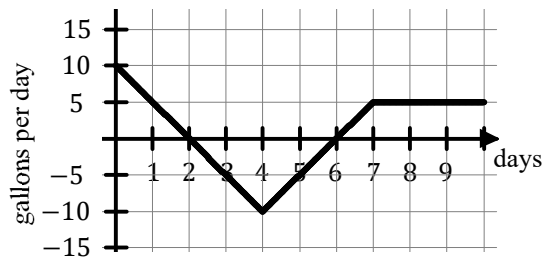
1. The graph below shows the rate of change of the number of people in a store since noon. Assume there are 100 people in the store at noon ($t = 0$ hours).



a. How many people are in the store after 4 hours?

b. How many people are in the store after 9 hours?

2. The graph below shows the rate of change of water, measured in gallons per day, in a lake over a 10-day period.



a. How much water has the lake gained/lost during the first five days?

b. How much water has the lake gained/lost during the first eight days?

Each function listed represents a rate of change. What are the units for the area under the curve?

3. $L(t)$ is measured in liters per hour and t is measured in hours.

4. $p(t)$ is measured in people per minute and t is measured in minutes.

1a. 94 people	1b. $100 + \frac{2}{\pi}$ people	2a. Lost 7.5 gallons	2b. Lost 2.5 gallons	3. liters	4. people
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