

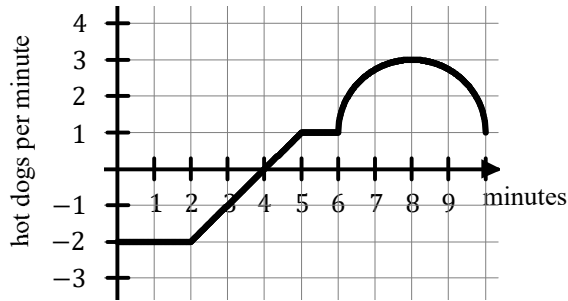
6.1 Accumulation of Change

CA #1

Calculus

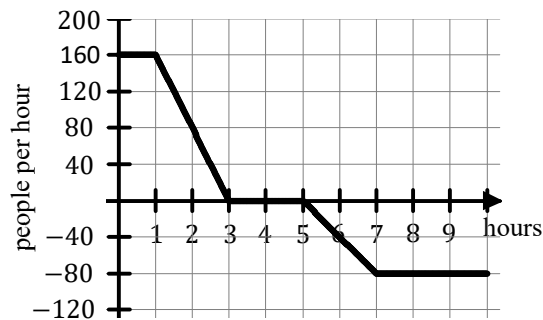
Name: _____

1. The graph below shows the rate at which hot dogs are on Mr. Kelly's plate. Assume there are 10 hot dogs on the plate at $t = 0$ minutes.



- a. How many hot dogs are on Mr. Kelly's plate after six minutes?
- b. How many hot dogs are on Mr. Kelly's plate after 10 minutes?

2. The graph below shows the rate of change of the number of people in a movie theater. Assume no one was in the theater at $t = 0$ hours.



- a. How many people are in the theater after 3 hours?
- b. How many people are in the theater after 10 hours?

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

3. $g(t)$ is measured in ounces per second and t is measured in seconds.

4. $T(d)$ is measured in $^{\circ}\text{C}$ per day and d is measured in days.

1a. 5.5 hotdogs	1b. $9.5 + 2\pi$ hotdogs	2a. 320 people	2b. 0 people	3. ounces	4. $^{\circ}\text{C}$
-----------------	--------------------------	----------------	--------------	-----------	-----------------------