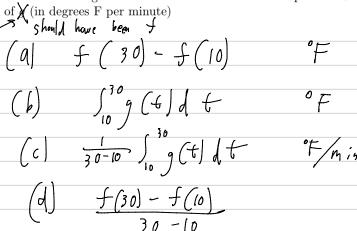
(1) Suppose that

f(t) =The temperature of an oven after t minutes (in degrees F)

g(t) = The rate at which the oven is warming after t minutes (in degrees F per min)

- (a) Write the amount the oven warmed up from 10 minutes to 30 minutes in terms of f.
- (b) Write the amount the oven warmed up from 10 minutes to 30 minutes in terms of g.
- (c) Write the average rate at which the oven warmed up from 10 minutes to 30 minutes in terms of g (in degrees F per minute)
- (d) Write the average rate at which the oven warmed up from 10 minutes to 30 minutes in terms of **X** (in degrees F per minute)



(2) Suppose that

 $\begin{array}{c|c} p(t) = \text{The position of a bike (in feet) after t minutes} \\ v(t) = \text{The velocity of the bike (in feet/minute) after t minutes} \\ v(t) = \text{The velocity of the bike (in feet/min^2) after t minutes} \\ v(t) = \text{The acceleration of the bike (in feet/min^2) after t minutes} \\ \end{array}$

- (a) Write the displacement of the bike from 10 minutes to 20 minutes in terms of p.
- (b) Write the displacement of the bike from 10 minutes to 20 minutes in terms of v.
- (c) Write the change in velocity of the bike from 10 minutes to 20 minutes in terms of v.
- (d) Write the change in velocity of the bike from 10 minutes to 20 minutes in terms of a.
- (e) Write the average velocity of the bike from 10 minutes to 20 minutes in terms of p.
- (f) Write the average velocity of the bike from 10 minutes to 20 minutes in terms of v.
- (g) Write the average acceleration of the bike from 10 minutes to 20 minutes in terms of v.
- (h) Write the average acceleration of the bike from 10 minutes to 20 minutes in terms of a.

(a)
$$P(20) - P(10)$$
 (f) $\frac{1}{20-10} \int_{10}^{20} v(t)dt$
(b) $\int_{0}^{10} v(t)dt$ (g) $\frac{v(20)-v(10)}{20-10}$
(c) $V(20) - V(10)$
(d) $\int_{10}^{20} a(t)dt$
(e) $\frac{1}{20-10} \int_{10}^{20} a(t)dt$