

$$s(t)$$

$$v(t) = s'(t)$$

$$a(t) = v'(t)$$

$$v(t) = 0$$

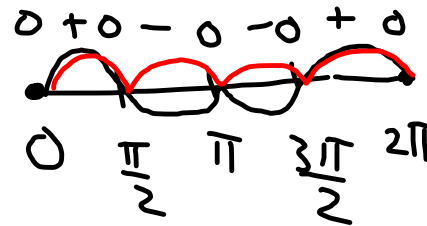
when

$$t = 0, \pi, 2\pi$$

$$\text{or } \frac{\pi}{2} \quad \frac{3\pi}{2}$$

$$v(t) = 5 \sin^2 t \cos t$$

$$0 \leq t \leq 2\pi$$



$$\int_0^{2\pi} v(t) dt = \underline{\text{Net change in position}}$$

$$s(2\pi) - s(0) = \text{Displacement}$$

$$\int_0^{2\pi} |v(t)| dt$$

Initial temp  $350^\circ$

Placed in  $75^\circ$  room

Temperature is changing @

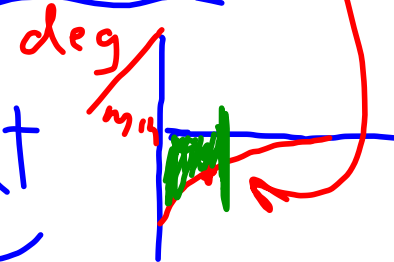
the rate of  $-110e^{-.4t}$

Find the temp of the pizza

@  $t = 5$  minutes

$$350 + \int_0^5 -110e^{-.4t} dt$$

Net change is negative



rate function