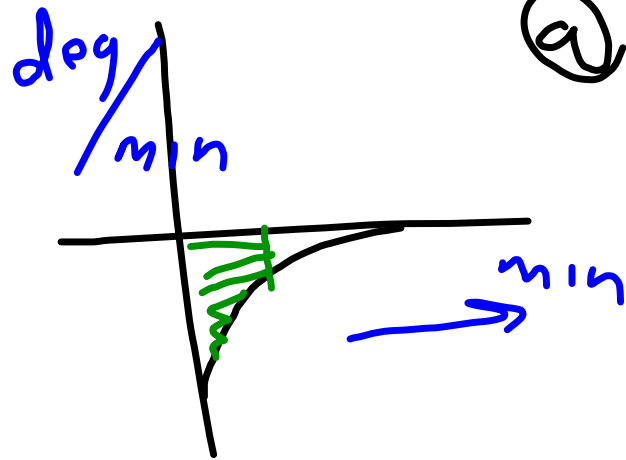


Pizza @ 350°F

75°F room

cools at a rate of $-110e^{-.4t}$
degrees / minute.

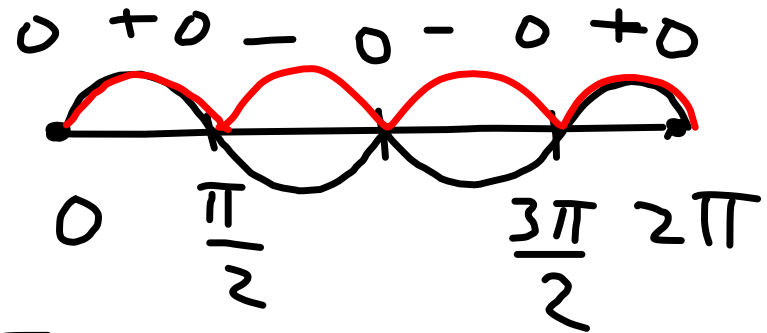
Find the temp of the pizza
@ 5 minutes?



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

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

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



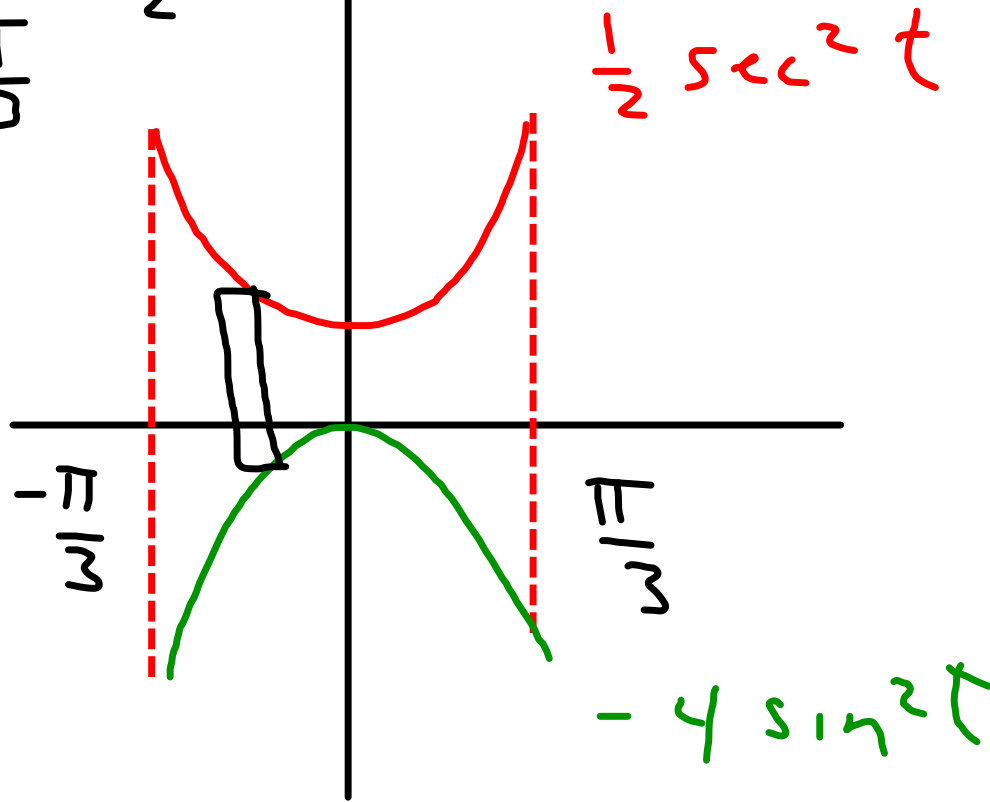
$$s(t)$$

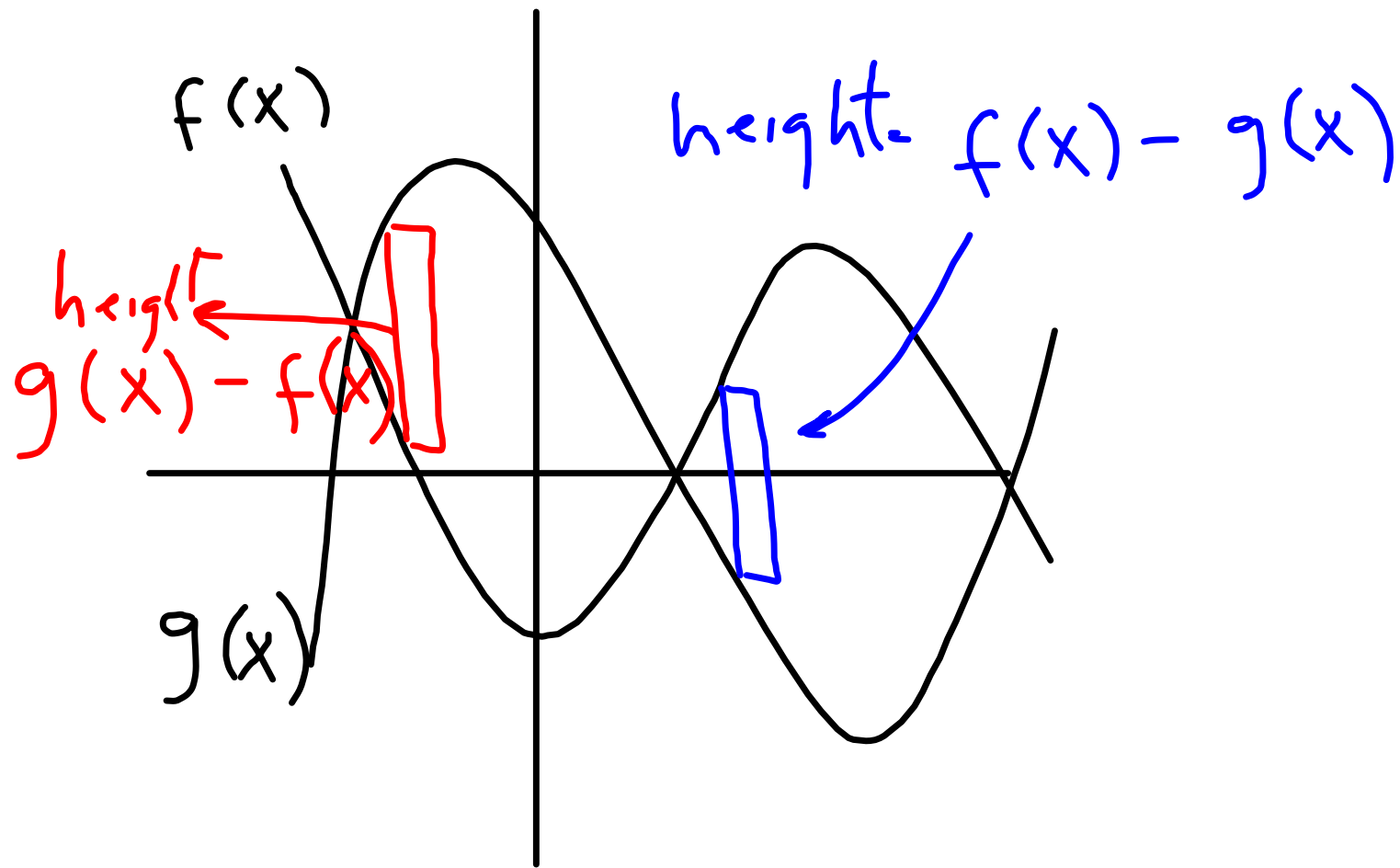
$$s'(t) = v(t)$$

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

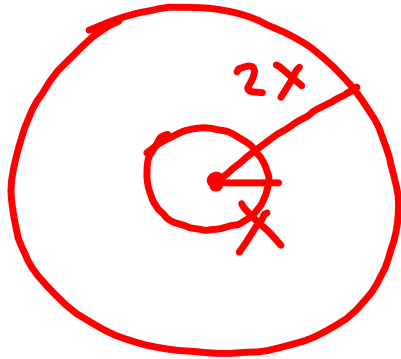
$$\int_0^{2\pi} |5 \sin^2 t \cos t| dt$$

$$A = \int_{F_{1/2}}^{F_{3/2}} \left(\frac{1}{2} \sec^2 t + 4 \sin^2 t \right) dt$$





$$\pi (2x)^2 - x^2$$



$$y = 2x$$

$$y = x$$

$$A(x) = 3x^2 \pi$$

$$V = \int_a^b A(x) dx$$

$$x = 1$$

$$\begin{aligned} & \pi \int_0^1 3x^2 dx \\ & \pi [x^3]_0^1 \\ & = \pi \end{aligned}$$