

3. (5) A yam which is initially at 45°F is placed in an oven which is at 425°F . The temperature of the yam t hours after it is placed in the oven is given by the function $T(t) = 425 - 380e^{-0.19t}$. How long (to the nearest minute) will it take for the yam to reach a temperature of 145°F ?

4. (5) Amanda has found a new investment account which is expected to pay 5.8% annual interest, compounded quarterly. After the initial investment is made, the balance of the account t years later can be modeled by $A = P(1.0145)^{4t}$, where P is the amount of the initial investment. How long will it take the investment to reach triple its initial value? Round to the nearest 0.1.