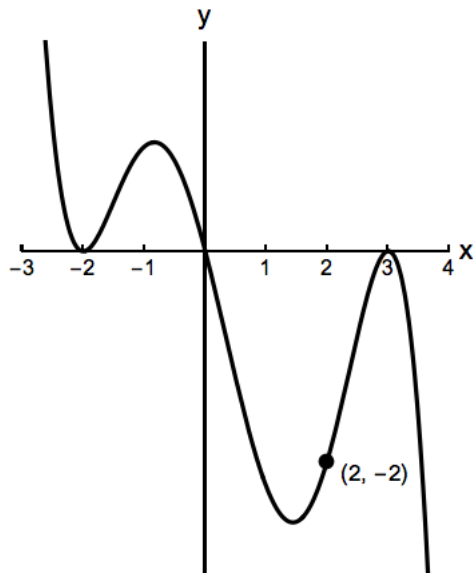


1. [9 points]

- a. [3 points] Let T be the temperature in $^{\circ}\text{F}$ at a distance L feet away from a bonfire. It is known that for $1 \leq L \leq 3$, the temperature T is inversely proportional to the cube root of the distance L to the bonfire. Find a formula for T in terms of L if the temperature at 2 feet away from the bonfire is 125°F .

$$T = \underline{\hspace{10em}}$$

- b. [6 points] The graph of a polynomial $f(x)$ of degree five is shown below.



i) Find the zeros of $f(x)$. $\underline{\hspace{10em}}$

ii) Find a formula for $f(x)$.

$$f(x) = \underline{\hspace{10em}}$$