1. A plant can manufacture 80 golf clubs per day for a daily cost of \$7,647. For a daily cost of \$9,149 the plant can manufacture 105 golf clubs per day. Assuming that daily cost and production are linearly related, find the function that will give the daily cost as a function of the number of clubs produced.

   points: $(80, 7647)$ and $(105, 9149)$ and $m = \dfrac{9149 - 7647}{105 - 80} = 60.08$

   $y - 9149 = 60.08(x - 105)$

   can also use linear regression: cost $y = 60.08x + 2840.6$

2. The price-demand function for a product is given by $p = -0.045x + 345.6$, where p is in dollars and x is the number of items demanded. If the number of items demanded increased by 350, how will this affect the price of the items?

   Note: $-0.045 * 350 = -15.75$

   The price will decrease by \$15.75

3. Find the domain of the functions $f(x) = \dfrac{x + 2}{2x^3 - 9x^2}$

   $f(x) = \dfrac{x + 2}{x^2(2x - 9)}$

   domain is all real numbers except $x = 0$ and $x = \dfrac{9}{2}$