

4. [11 points] As stated in the problem above, the price of each t-shirt $P(s)$ (in dollars) at *Amazing T-Shirts* is a function of s , the total number of t-shirts a customer orders. In particular, now assume that if the customer orders exactly 1 t-shirt, it costs \$14.50. If the customer orders 30 t-shirts, each shirt costs \$13.30.

- a. [3 points] If we assume that $P(s)$ is a **linear function**, find a formula for $P(s)$ *Show all work. Numbers in your final function can be rounded to two decimal places or expressed in exact form.*

$$P(s) = \underline{\hspace{10cm}}$$

- b. [2 points] What is the meaning of the slope of $P(s)$ in your linear function above?

Meaning of Slope:

- c. [3 points] If we assume that $P(s)$ is an **exponential function**, find a formula for $P(s)$ *Show all work. Numbers in your final function can be rounded to two decimal places or expressed in exact form.*

$$P(s) = \underline{\hspace{10cm}}$$

- d. [3 points] If we assume that $P(s)$ is a **power function**, find a formula for $P(s)$ *Show all work. Numbers in your final function can be rounded to two decimal places or expressed in exact form.*

$$P(s) = \underline{\hspace{10cm}}$$