Writing Linear Equations from Recursive Routines

1. Determine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Determine the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from a described situation, graph, or table.
3. Write the linear equation by filling in the start value (b) and rate of change (m) in the equation: $y=b+mx$

$y=\\_\\_\\_\pm \\_\\_\\_\\_\\_\\_\\_x$

Rate of Change

Start Value

Peter sells corn at his booth in the Farmer’s Market. His start-up cost for his business was $200 which he spent on seeds, fertilizer and water. Peter earns $0.25 for each ear of corn he sells. Create a table, graph, and equation to represent Peter’s total profits if *x* represents the number of ears of corn sold and *y* his total profit.

Nakisha sells homemade candles at the Farmer’s Market. She recorded her total profit for the first five candles sold in the table below. What is the start value for her business? What is her rate of change? White a linear equation in the form $y=b+mx$ to represent Nakisha’s total profits at the Farmer’s Market if *x* represents the number of candles sold and *y* is her total profit.