Linear Equations and Linear Systems in the Real World

Consider the tables below and answer the questions.

Jose's Savings Plan

| # of Months Saving | Balance |
|--------------------|---------|
| 1 | \$60 |
| 3 | \$80 |
| 5 | \$100 |
| 7 | \$120 |
| 9 | \$140 |



Marcus's Savings Plan

| # of Months Saving | Balance |
|--------------------|---------|
| 1 | \$15 |
| 3 | \$45 |
| 5 | \$75 |
| 7 | \$105 |
| 9 | \$135 |

Samantha's Savings Plan

| # of Months Saving | Balance |
|--------------------|---------|
| 1 | \$80 |
| 3 | \$90 |
| 5 | \$100 |
| 7 | \$110 |
| 9 | \$120 |

- How much money with Jose have saved in 11 months? 13 months? •
- How much money will Marcus have saved after 2 months? 4 months? •
- In how many months will Samantha have saved \$130? \$190?
- What is the rate of change? What does it mean in the context of the problem?
- How can knowing the rate of change help you in answering questions in this problem? •
- What is the y-intercept? What does it mean in the context of the problem? Where do you find • the y-intercept on each table?