NAME _____   DATE _____

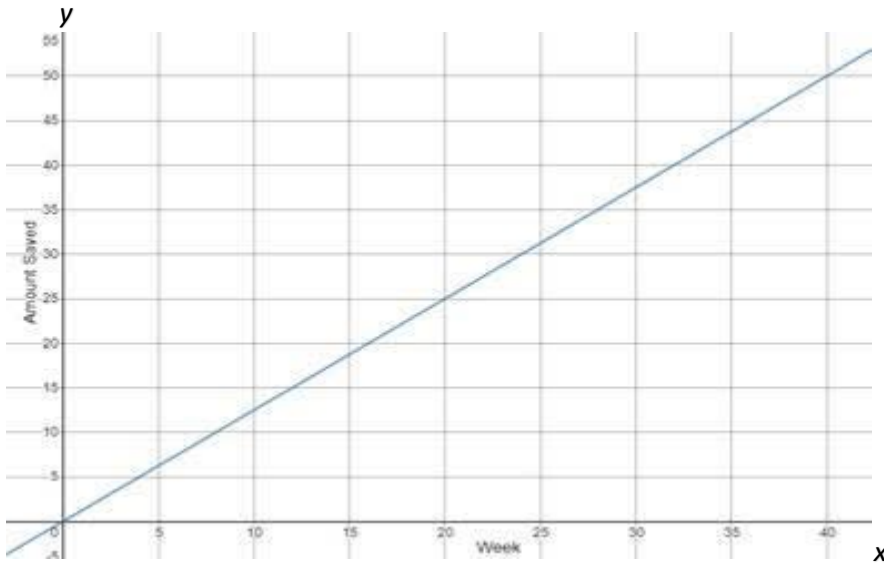# Bicycle Savings

SOL A.6

- Use the parent function y = x and describe the transformations defined by changes in the slope or y-intercept (c).

Part 1:

Sarah is saving $1.25 a week to purchase a bicycle. The graph shows the amount she will have saved.

1. Write the equation of the line represented in the graph. Describe how the components of the equation represent the situation.

2. What would happen to the graph if she already had $5 saved? Represent this situation on the graph provided. Write the equation of the line represented in the graph. Describe how the components of the equation represent the situation.

3. What would happen to the graph if she saved $2.50 a week? Represent this situation on the graph provided. Write the equation of the line represented in the graph. Describe how the components of the equation represent the situation.

4. How would the graph change if she already had $5 saved AND started saving $2.50 a week? Represent this situation on the graph provided. Write the equation of the line represented in the graph. Describe how the components of the equation represent the situation.

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Part 2:

1. Create a situation like the one in Part 1 that can be represented by a linear function.

2. Describe the components of the equation and how they represent the situation.

3. Graph the linear function.

4. Change the situation so that one of the components of the equation is transformed.

5. Describe which component was changed and how this would affect the graph.

6. Graph the transformed linear function.