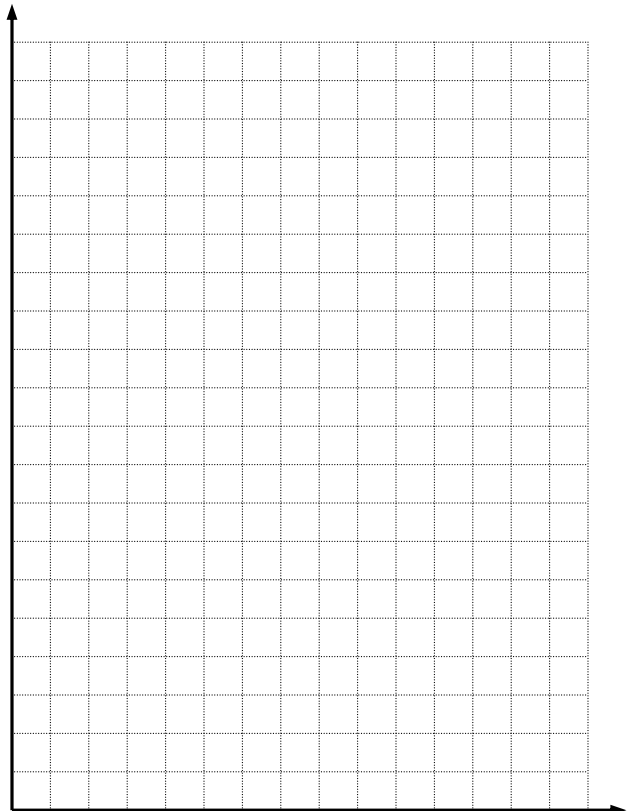
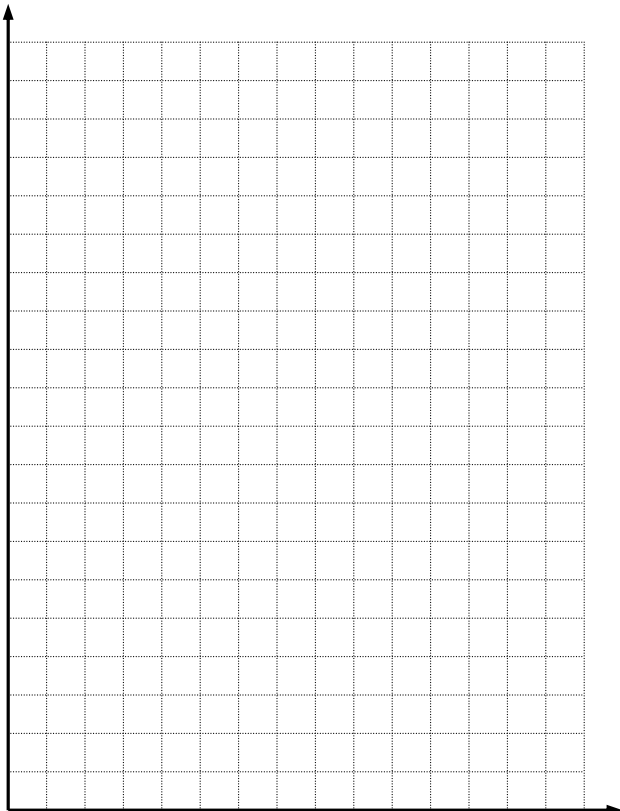


Linear Relationships

Answer the following on your POD paper (except for the graphs).

1. Max is saving up money to buy a new bike. He currently has \$50 in his savings account. Each month, he plans to add \$12 to it from his allowance.
 - a. Make a table to show the amount of money in his savings account after each of the first ten months.
 - b. Identify the dependent variable and independent variable. Explain how you know which is which.
 - c. Write an equation for the situation. State what each variable represents.
 - d. What does the slope represent in the context of the story? The y -intercept?
 - e. Make a graph for the situation. Be sure to label your axes and title the graph!
2. Alex collected 380 pieces of candy for Halloween. She plans to eat 30 pieces each day until all of the candy is gone.
 - a. Make a table to show how much candy she has left after each of the first ten days.
 - b. Identify the dependent variable and independent variable. Explain how you know which is which.
 - c. Write an equation for the situation. State what each variable represents.
 - d. What does the slope represent in the context of the story? The y -intercept?
 - e. Make a graph for the situation. Be sure to label your axes and title the graph!



- 3. Waverly Taxi Service charges a \$3.75 fee, plus an additional \$1.75 per mile.
 - a. Make a table to show the total cost after each of the first ten miles.
 - b. Identify the dependent variable and independent variable. Explain how you know which is which.
 - c. Write an equation for the situation. State what each variable represents.
 - d. What does the slope represent in the context of the story? The y -intercept?
 - e. Make a graph for the situation. Be sure to label your axes and title the graph!
 - f. How much would a 40 mile trip cost? Show how you know.
 - g. If a trip cost \$44, how many miles was it? Show how you know.

- 4. Harper has \$75 in her piggy bank. She plans to spend \$4 each week.
 - a. Make a table to show how much money she has left after each of the first ten weeks.
 - b. Identify the dependent variable and independent variable. Explain how you know which is which.
 - c. Write an equation for the situation. State what each variable represents.
 - d. What does the slope represent in the context of the story? The y -intercept?
 - e. Make a graph for the situation. Be sure to label your axes and title the graph!

