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| My Definition**Linear Functions** | Characteristics |
| Examples$$Y=2x+4$$ | Non-Examples$$ y=\frac{4}{x} y=3-x^{3}$$ |

Linear Function Practice (6.4)

1.)

Determine whether each table or graph represents a linear or nonlinear function (circle one). If it is linear, write a linear function that relates x to y. If it is not linear, explain why.

2.) 3.)

Linear or Nonlinear Linear or Nonlinear

Equation or explanation: Equation or explanation:



4.) 5.)

Linear or Nonlinear Linear or Nonlinear

Equation or explanation: Equation or explanation:

**Graph the data in each table. Decide whether each graph is linear or nonlinear.**

**Compare the two falling objects. Which one has an increasing (not constant) speed?**



The table shows the cost y (in dollars) of x pounds of sunflower seeds.

a. What is the missing y-value that makes the table represent a linear function?

 b. Write a linear function that represents the cost y of x pounds of seeds.

c. Interpret the slope of the function.

**TREES** Tree A is 5 feet tall and grows at a rate of 1.5 feet per year. The table shows the height h (in feet) of Tree B after x years.

1. Does the table represent a linear or nonlinear function? Explain.
2. Write a linear equation for Tree A.
3. Write a linear equation for Tree B.
4. Which tree is taller after 10 years? Explain.
5. Create a graph representing both trees heights. Which tree is growing at a faster rate?

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