

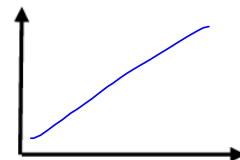
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Recognizing a Graph as a Pictorial Representation of a Function
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Name the independent variable and the dependent variable for each relationship below. Then sketch a graph to represent each relationship described below.

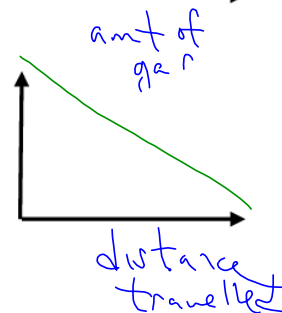
1. The amount of money you would pay for gasoline as you fill your car's tank from almost empty to full. cost

independent variable: amt of gas, (g-l)
 dependent variable: cost, \$



2. The amount of gasoline in the same car as you then drive it 200 miles. amt of gas

independent variable: distance traveled
 dependent variable: amt of gas



① \$ cost depends on amt of gas.

② amt of gas depends on distance.

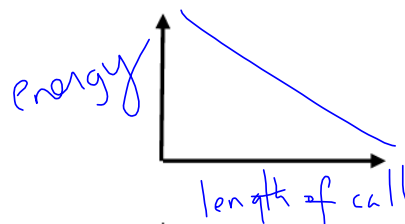
① energy depends on length of call.

✓ **Understanding Check:**

1. The amount of energy in a fully charged cell phone as someone makes a long four-hour phone call.

independent variable: length of call

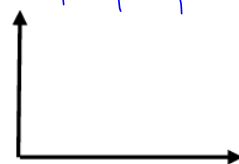
dependent variable: energy



2. The weight of a puppy from birth to 12 weeks.

independent variable: _____

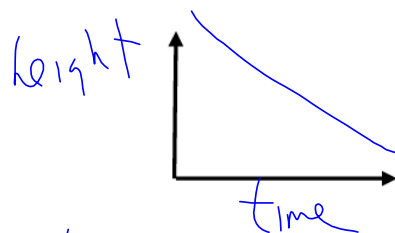
dependent variable: _____



3. The height of a burning birthday candle over time.

independent variable: time it burns

dependent variable: height of candle



③ height candle depends on time.

4. The amount of money in a savings account opened with 20 dollars that gets regular deposits of 10 a week.

independent variable: _____

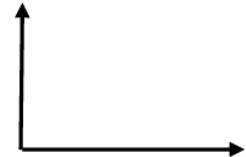
dependent variable: _____



5. The height of a birthday candle unlit over time.

independent variable: _____

dependent variable: _____



✓ Understanding Check:

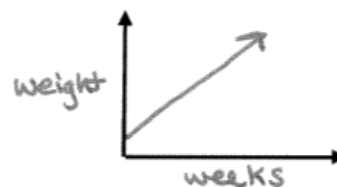
1. The amount of energy in a fully charged cell phone as someone makes a long four-hour phone call.

independent variable: hours
 dependent variable: energy



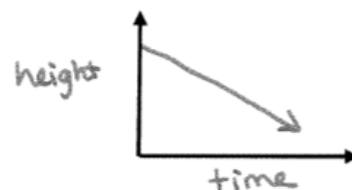
2. The weight of a puppy from birth to 12 weeks.

independent variable: weeks
 dependent variable: weight



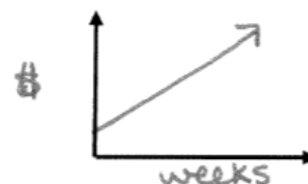
3. The height of a burning birthday candle over time.

independent variable: time
 dependent variable: height



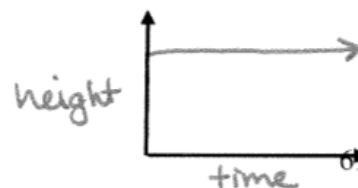
4. The amount of money in a savings account opened with 20 dollars that gets regular deposits of 10 a week.

independent variable: weeks
 dependent variable: \$ or savings



- * 5. The height of a birthday candle unlit over time.

independent variable: time
 dependent variable: height



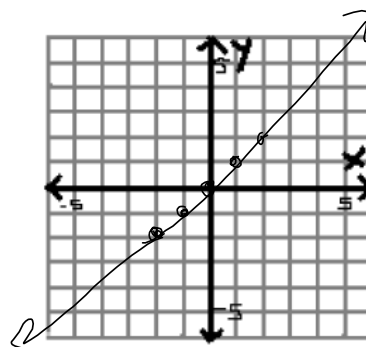
page 70 ← This page is your warm up!

Exploring Different Types of Functions

Make a table of values and a graph for each function rule. Use $\{-2 \leq x \leq 2\}$ for the domain for each problem.

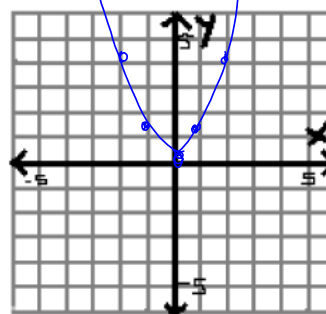
1. $y = x$

x	y
-2	-2
-1	-1
0	0
1	1
2	2



2. $y = x^2$

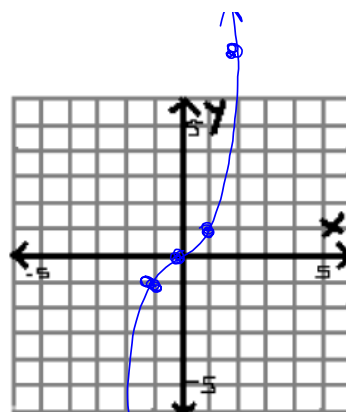
x	y
-2	4
-1	1
0	0
1	1
2	4



3. $y = x^3$

$$y = -2 \cdot -2 \cdot -2 = -8$$

x	y
-2	-8
-1	-1
0	0
1	1
2	8



4. $y = |x|$

x	y
-2	2
-1	1
0	0
1	1
2	2

