Lesson 8.2 • Functions and Graphs

Name _____ Period _____ Date _____

1. Use the given equations to find the missing output values.

a. $y = 3$

Input x	Output y
4	
3	
2	
1	
0	
−1	
−2	

b. $y = -1.5 + 3x$

Input x	Output y
−2	
−1.5	
−1	
−0.5	
0	
0.5	
1	

c. $y = 6.8 + 0.5x$

Input x	Output y
−6	
−2.4	
1	
2.8	
−14	
3.1	
−17.5	

2. Use the given equations to find the missing domain and range values.

a. $y = -3x - 5$

Domain x	Range y
−4	
	2
	−7

b. $2x - 3y = 6$

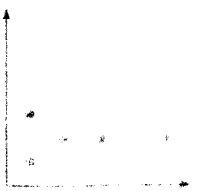
Domain x	Range y
	0
0	
	2
−6	
	5

c. $x^2 - 2y = 11$

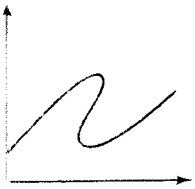
Domain x	Range y
−3	
0	
	7
1	
4	

3. Find which graph represents a function.

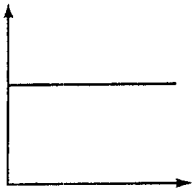
a.



b.

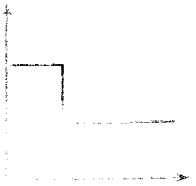


c.

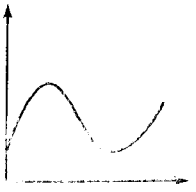


d.

e.



f.



Lesson 8.3 • Graphs of Real-World Situations

Name _____ Period _____ Date _____

1. For each relationship, identify the independent variable and the dependent variable.

   a. The temperature of a carton of milk and the length of time it has been out of the refrigerator

   b. The weight suspended from a rubber band and the length of the rubber band

   c. The diameter of a pizza and its cost

   d. The number of privately owned cars and the standard of living in a country

   e. The number of cars on the freeway and the level of exhaust fumes in the air

2. Sketch a reasonable graph for each situation and label the axes. (Use the attached graph papers)

   a. The temperature of a pot of water as it is heated

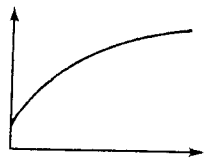
   b. The relationship between the cooking time for a 2-pound roast and the temperature of the oven

   c. The distance from a Ferris-wheel rider to the ground during two revolutions

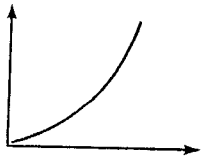
3. Match each description with its most likely graph, and tell which variable each axis represents.

   i.

   ii.

   iii.

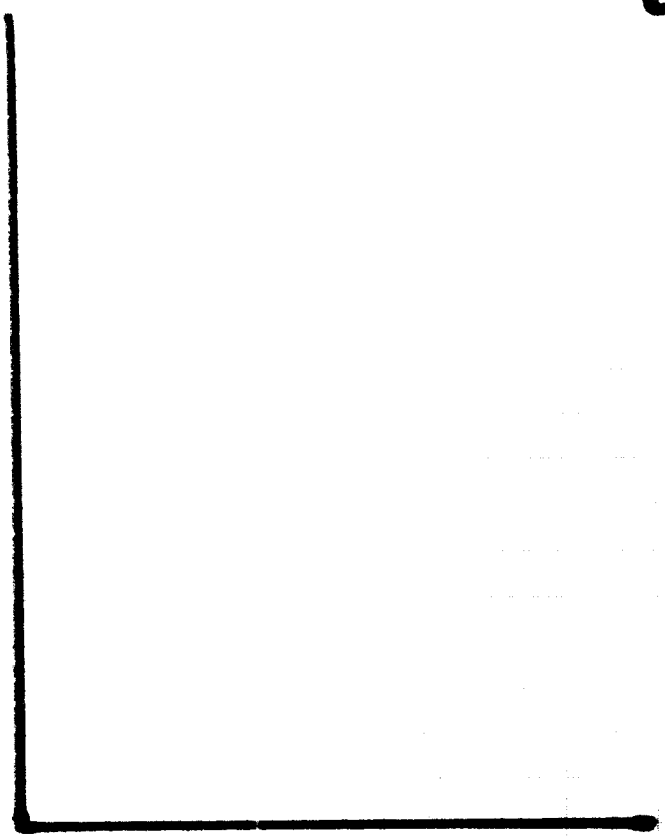
   a. The relationship between your grade on the next math test and the amount of time you spend doing math problems before the test

   b. The relationship between the amount a person earns in an 8-hour day and his or her hourly wage

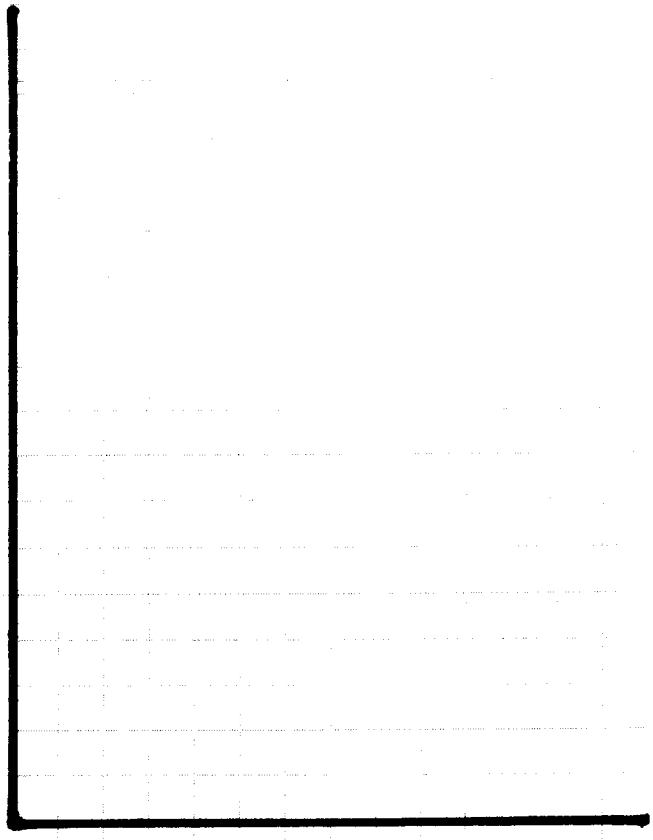
   c. The change in the area of a square as its side length increases

2.

a)



b)



c)