

Name: _____ Period: _____ Date: _____

WORKSHEET – DOMAINS AND RANGES FROM WORD PROBLEMS

Read each word problem below and answer the questions that follow. Remember to answer all questions in context using proper notation and symbols. When asked to describe the domain or range, be sure to think about appropriate limitations on the domain and range in context of the problem.

Use the following information to answer questions 1 – 3.

Joe had a summer job that pays \$7.00 an hour and he worked between 15 and 35 hours every week. His weekly salary can be modeled by the equation: $S = 7h$, where S is his weekly salary and h is the number of hours he worked in a week.

1. Describe the independent variable for this problem.

2. Describe the domain and range for this problem using appropriate notation.

Domain:

Range:

3. What does each value in the ordered pair (20, 140) mean in context of this problem?

Use the following information to answer questions 4 and 5.

Hector's service club is raising money by wrapping presents in the mall. The function $f(x) = 3x$ describes the amount of money, in dollars, the club will earn for wrapping x presents. They only have enough wrapping paper to wrap 1000 presents.

4. Describe the dependent variable for this problem.

5. Describe the domain and range for this problem using appropriate notation.

Domain:

Range:

Use the following information to answer questions 6 – 8.

The surface area of a cube can be found using the following formula: $A = 6s^2$, where A represents the surface area of the cube and s represents the length of one edge. Your geometry teacher wants you to draw a cube that has a length of at least 5 inches.

6. Describe the independent variable for this problem.
7. Describe the domain and range for this problem using appropriate notation.

Domain:

Range:

8. Find one ordered pair that represents a reasonable input and output value for this function and describe in context of the problem what each number in the ordered pair means.

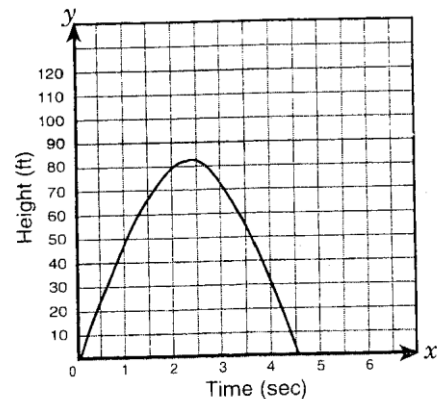
Ordered pair:

Description:

Use the following information to answer questions 9 – 10.

A ball was thrown into the air with an initial velocity of 72 feet per second. The height of the ball after t seconds is represented by the equation $h = 72t - 16t^2$. The graph of the function is shown to the right.

9. Describe the dependent variable for this problem.



10. Describe the domain and range for this problem using appropriate notation.

Domain:

Range: