

Name :

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HOMEWORK 5.3

Secondary Math II

Turned in On Time (4 pts.) <div style="border: 1px solid black; width: 40px; height: 40px; margin: 10px auto;"></div>	0A. (2 pt.) Solve. $x^2 - 25 = 0$
	0B. (2 pt.) Solve. $2(x - 3)^2 = 8$

Review

1. (1 pt.) State the domain and range for the following: $\{(0,0), (1,2), (2,3), (3,4), (5,7)\}$	2. (1 pt.) Write in Set notation. $[-3,4] \cup (5,\infty)$	3. (1 pt.) Find the root/zeros for the function. $f(x) = 3(x - 3)(2x + 1)$ $x = 3, -\frac{1}{2}$
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Classroom Exercise #4 (3 pts.) <div style="border: 1px solid black; width: 40px; height: 40px; margin: 10px auto;"></div>	4A. (1 pt.) Write the domain and range in interval notation. $f(x) = -\frac{1}{2}x - 3$
	4B. (1 pt.) Write the domain and range in interval notation. $g(x) = 5^x$ $D: (-\infty, \infty)$ $R: (0, \infty)$
	4C. (1 pt.) Write the domain and range in interval notation. $h(x) = 2x^2 - 3$

Use your calculator to graph each function, then write the domain and range in set notation or interval notation.

5. (1 pt.) $f(x) = -2x^2 + 4$ $D: \{x \mid x \in \mathbb{R}\}$ $R: \{y \mid 4 \leq y\}$	6. (1 pt.) $f(x) = 3$	7. (1 pt.) $f(x) = \sqrt{x - 5}$
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Give a possible domain in interval notation for the following.

**Classroom
Exercise #8**

(3 pts.)



8A. (1 pt.) A function that gives the height of a ball after t seconds.

8B. (1 pt.) A function that gives the cost of a book according to x amount of sales.

$\{0,1,2,3,4,5,\dots\}$

8C. (1 pt.) A function that gives the amount of pizzas for x amount of people with a max of 8 people.

For each situation detailed below, identify the possible domain and range.

4. (2 pts.) Jessie is parking in a garage for a concert. It costs \$6 for the first 2 hours, an additional \$3 for each additional hour or fraction of an hour, with a maximum charge of \$24 for a day.

Domain:

Range:

5. (2 pts.) 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 worked in a week.

Domain:

Range:

6. (2 pts.) A startled armadillo jumps straight into the air. The model for the armadillo's height above the ground is $h = -16t^2 + 14t$, where t is the time the armadillo is in the air and h is the distance from the ground.

Domain:

Range:

7. (2 pts.) 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 for 1000 presents.

Domain: $[0,1000]$

Range: $[0,3000]$

8. (2 pts.) Oakland Coliseum, home of the Oakland Raiders football team, is capable of seating 63,026 fans. For each game, the amount of money that the Raiders organization brings in as revenue is a function of the number of people, n , in attendance. Let's suppose that each ticket costs \$30.00, so we model ticket sales, s , as $s = 30n$

Domain: $[0, 63,026]$

Range: $[0, 1,890, 780]$

9. (2 pts.) The average score on a test is found by $A = T / c$ where T is the total sum of all test scores and c is the number of students in the class. The test is worth 100 points and there are only 32 students in the class.

Domain:

Range: