Name:
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/29

HOMEWORK 5.1

Secondary Math II

Turned in On Time *(4 pts.)* ☐

0A. (2 pt.)
Convert from interval notation to set notation. $(-5,6)\cup[9,\infty)$

0B. (2 pt.)
Convert from set notation to interval notation.
$\{x \mid -10 \le x < -9 \text{ or } x > 2\}$

Review

1 (1 pt.) Write the function below in factored form.
$f(x) = x^2 - 64$

$(x-8)(x+8)$

2. (1 pt.) What is the y-intercept of the function below? Write as an ordered pair.
$f(x) = 5x^2 + 6x + 7$

3. (1 pt.) Find the solution(s) to the equation below.
$2 = 4x^2 + 7x$

$x = \frac{1}{4}, -2$

Classroom Exercise #4 *(3 pts.)* ☐

4A. (1 pt.) Draw a line graph for the following interval:
$(-\infty,-5]$

4B. (1 pt.) Draw a line graph for the following interval:
$(-\infty,-5)$

4C. (1 pt.) Draw a line graph for the following interval:
$(-\infty,5]$

Convert the following from Interval Notation to Set Notation.

5. (1 pt.)
$(3,\infty)$
$\{x \mid 3 < x\}$

6. (1 pt.)
$[3,\infty)$

7. (1 pt.)
$(-4,0]$

8. (1 pt.)
$(-\infty,5]$

$\{x \mid x \le 5\}$

9. (1 pt.)
$(-\infty,\infty)$

10. (1 pt.)
$[-2,0]\cup[3,\infty)$

$\{x \mid -2 \le x \le 0 \text{ or } 3 \le x\}$

Classroom Exercise #11 *(3 pts.)* ☐

11A. *(1 pt.)* Write the following in Interval Notation.
$\{x \mid x > 6\}$

$(6,\infty)$

11B. *(1 pt.)* Write the following in Interval Notation.
$\{x \mid x \le 4\}$

11C. *(1 pt.)* Write the following in Interval Notation.
$\{x \mid x \le -3 \text{ or } x > 0\}$

Convert each of the following from Set Notation into Interval Notation.

12. *(1 pt.)*
$\{x \mid x \in \Re\}$

$(-\infty,\infty)$

13. *(1 pt.)*
$\varnothing$

14. *(1 pt.)*
$\{x \mid -4 < x < 5\}$

15. *(1 pt.)*
$\{x \mid x \le 0 \text{ or } x > 3\}$

16. *(1 pt.)*
$\{x \mid -4 \le x \le 1 \text{ or } x > 5\}$

$[-4,1] \cup (5,\infty)$

17. *(1 pt.)*
$\{x \mid x < -6 \text{ or } x > -2\}$

$(-\infty,-6) \cup (-2,\infty)$

18. *(1 pt.)*
$\{x \mid -6 \le x < 0\}$

$[-6,0)$

19. *(1 pt.)*
$\{x \mid x \ge -1\}$

20. *(1 pt.)*
$\{x \mid -7 < x \le -2 \text{ or } 2 \le x < 18\}$