

ALGEBRA II REVIEW PROBLEMS

(Chapter 1)

1. Put a check under the subset(s) of real numbers to which each number belongs:

Number	Rational	Integer	Whole	Natural	Irrational
π					
2					
-3					

2. Complete the table:

Number	Additive Inverse	Multiplicative Inverse	Absolute Value
$\frac{4}{5}$			
-2.5			

3. Name the property used:

a. $6 + 4 = 4 + 6$

b. $4 + 0 = 4$

4. Simplify: $13 - 2 \cdot 12 \div 6 + 5$

5. Evaluate: $10a + 3b - 5a + 4b + a + 5b$ for $a = -3$ and $b = 5$

6. Simplify: $10(a - 2b) + 3(a - 2b)$

7. Solve the following equations:

a. $2(x + 3) + 2(x + 4) = 24$

b. $|3x - 6| - 7 = 14$

8. Solve for x. State any restrictions on the variables if they exist.

a. $y = \frac{1}{3}z^2x$

b. $c(x + 2) - 5 = b(x - 3)$

9. Solve each inequality. Graph the solutions.

a. $36 \geq 1 - 5z > -21$

b. $|3x + 6| \geq 12$

ANSWERS

1.

Number	Rational	Integer	Whole	Natural	Irrational
π					✓
2	✓	✓	✓	✓	
-3	✓	✓			

2.

Number	Additive Inverse	Multiplicative Inverse	Absolute Value
$\frac{4}{5}$	$-\frac{4}{5}$	$\frac{5}{4}$	$\frac{4}{5}$
-2.5	2.5	$-\frac{2}{5}$	2.5

3a. Commutative Property of Addition

3b. Identity Property of Addition

4. 14

5. 42

6. $13a - 26b$

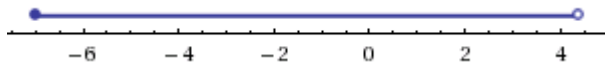
7a. $x = 5/2$

7b. $x = -5$ or 9

8a. $\frac{3y}{z^2}$

8b. $\frac{5 - 2c - 3b}{c - b}$, $b \neq c$

9a. $-7 \leq z < 4.4$



9b. $x \leq -6$ or $x \geq 2$

