

Name _____
Date _____

MTH 098 – Introduction to Algebra
Class # 15 HW

Review Class

Quality – Accuracy – Transfer – 100%

Section 1. Evaluate.

1. $\frac{-2ab}{a^2 - 2ac}$ when $a = 2$, $b = -2$, and $c = -3$

2. $-2ac - 3(a + b)^2$ when $a = 1$, $b = 3$, and $c = -4$

3. $-a^2 - 2ac \div (-b)$ when $a = 6$, $b = -3$, and $c = 4$

Section 2. Solve the Equations for the Variable.

4. $3a + 5 = 5a + 7$

5. $3x - 7 = 4 - 2(3x + 4)$

6. $2(3 - 4x) + 4 = 2 - 3(4 - 4x)$

7. $\frac{2}{3}x + 5 = 3$

Formula Problems: Solving Multi-Variable Expressions for the “Asked For” Variable.

8. Solve for a : $5a + 3b = 10$

9. Solve for y : $-x + 2y = 4$

Section 3. Simplify, Leaving Positive Exponents in the Answer.

10. $(x^3y^4)^2$

11. $(3a^{-1}b^2)^{-2}$

12. $(2x^{-3})(x^4y^{-1})^2$

13. $\frac{-36a^3b}{-12a^2b}$

14. $-\frac{35a^3b^6}{7ab^4}$

15. $\frac{80a^8b^{11}}{16a^{10}b^9}$

**Section 4. Solve the system of Linear Equations Algebraically.
(Use Either Substitution or Addition).**

99.
$$\begin{aligned} 3x - 2y &= -3 \\ x + 5y &= -18 \end{aligned}$$

100.
$$\begin{aligned} 5x + 5y &= 5 \\ y &= 3 - x \end{aligned}$$

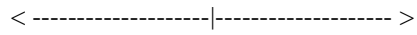
101.
$$\begin{aligned} 3x - 5y &= -11 \\ 2x + 2y &= 14 \end{aligned}$$

102.
$$\begin{aligned} 2x - 3y &= 14 \\ 4x - 6y &= 28 \end{aligned}$$

Section 5. Solve and Graph the Inequalities. Perform All Point Tests.

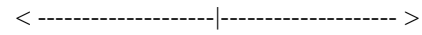
1. Solve and Graph the Inequality.

$$x + 2 \leq 5$$



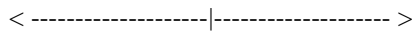
2. Solve and Graph the Inequality.

$$-4y \geq 16$$



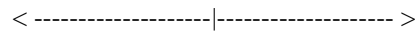
1. Solve and Graph the Inequality.

$$2x + 3 < 5x - 6$$



2. Solve and Graph the Inequality.

$$11 - 4x > 19$$



Work Area: