Name _____ Date _____ Period 1 2 3 4 5 6

Topic 1 // Holt 1.2 + 1.4 // Practice A **2008-09**

1. What is the reciprocal of 8?

2. What is the reciprocal of $-\frac{3}{2}$?

3. What is the quotient of -9 and 3?

4. What is the difference of 10 and -3?

5. What is the reciprocal of the quotient of -8 and 24?

6. What is the product of the opposite of 5 and the reciprocal of 5?

Simplify the following expressions:

7. $-3 + (5 - 8)^2 - 1$

8. $5 - 8 \div 2 + 7 \cdot 3$

9. $(2 - 4)(2 + 3)^2$

10. $4 - 3(2 - 5)^2$

11. $-3^2 - (2 - 5) + 4(1 + 2^2)^2$

12. Evaluate $2a^2 + 3b^3$ when a = 3 and b = 1

13. Evaluate $-4x^3 - 2x^2 + 5x - 1$ when x = -2

14. Evaluate $3y^3 - y^2$ when y = -1

N: _____ D: _____ P: 1 2 3 4 5 6

Topic 1 // 2.1 // Practice B ***Mission Hills Math 2013***

A. Solve for x.

1. Solve for x: $3(x - 5) = 18$

2. Solve for x: $5x + 3 = 2x - 1$

3. Solve for a: $2(4a - 5) = 3a - 5$

4. Solve for x: $\frac{3}{4}x - 1 = \frac{1}{2}$

5. Solve for y: $2(y - 3) - (y + 10) = -7y + 8$

6. Solve for n: $\frac{2}{3}n + 8 = 3n + 8$

B. Solve each Literal Equation for x.

7. $y - x = 7$

8. $3x + 2y = z$

9. $\frac{2}{3}x - 5 = y$

10. $5(x - 10) = a$

11. $-2(3 + x) = y$

12. $5x + xy = 3$

13. $x - ax = -7$ 14. $z = xy^2 + 2x$ *15. $b - x = 4x + ax$

C. Solve for the indicated variable.

16. Solve for h: $V = \pi r^2 h$ 17. Solve for W: $P = 2L + 2W$

18. Solve for A: $V = \frac{1}{3}Ah$ 19. Solve for b_2: $\frac{1}{2}h(b_1 + b_2)$

20. Solve for F: $C = \frac{5}{9}(F - 32)$ 21. Solve for n: $m^2n - 3n = 8$

N: _____ D: _____ P: 1 2 3 4 5 6

Topic 1 // 2.1 (Inequalities) // Practice C ***Mission Hills Math 2013***

→ *Use separate piece of paper*

A. Decide whether the number is a solution of the inequality. (Yes or No)

1) $3x + 5 \leq 20$, 4

2) $6 - 2y > 10$, -2

3) $-4 \leq w + 5$, -2

B. Solve and graph the following inequalities

4) $x - 3 < -6$

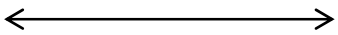
5) $2y + 1 \geq 7$

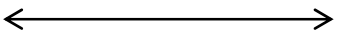
6) $-6a - 5 > -8$

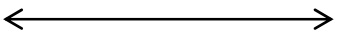
7) $5x - 3 \leq 2x + 6$

8) $9 - 3k > 12$

9) $-2x \geq -8x + 12$



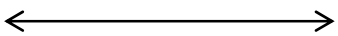


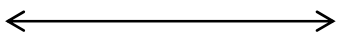


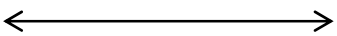
10) $-\frac{1}{2}x - 5 < -2$

11) $2x - 7 \geq 0$

12) $9a + 4 \leq 12a - 11$







N: _____ D: _____ P: 1 2 3 4 5 6

Topic 1 // 2.8 Practice // Practice D ***Mission Hills Math 2013***

→ *Use separate piece of paper*

A. Solve each absolute value equation.

1) $|x-5|=3$

2) $|2x+1|=11$

3) $\left|\frac{1}{3}x-5\right|=2$

4) $|2-x|=7$

5) $\left|\frac{x}{7}\right|=2$

6) $\left|\frac{x+4}{5}\right|=3$

7) $\left|\frac{3x-2}{4}\right|=6$

8) $\frac{|x-9|}{2}=4$

9) $2|x-6|=8$

10) $|x+5|-1=2$

11) $5|2x+4|-1=9$

12) $10-3|x+2|=-2$

N: _____ D: _____ P: 1 2 3 4 5 6

Topic 1 // 2.8 Practice // Practice D ***Mission Hills Math 2013***

→ *Use separate piece of paper*

A. Solve each absolute value equation.

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8) $\frac{|x-9|}{2}=4$

9) $2|x-6|=8$

10) $|x+5|-1=2$

11) $5|2x+4|-1=9$

12) $10-3|x+2|=-2$

B. Solve each absolute value inequality.

13) $|x+6|<8$

14) $|3x-2|>1$

15) $\left|\frac{1}{5}x+1\right|\leq 6$

16) $|6-x|\geq 2$

17) $\left|\frac{x}{10}\right|<3$

18) $\left|\frac{x+7}{3}\right|>9$

19) $\left|\frac{4x-5}{2}\right|\leq 4$

20) $\frac{|x-8|}{3}\geq 1$

21) $3|x+9|<6$

22) $|x-6|+3>4$

23) $6|x+5|-2\leq 10$

24) $7-2|x+1|\geq -13$

B. Solve each absolute value inequality.

13) $|x+6|<8$

14) $|3x-2|>1$

15) $\left|\frac{1}{5}x+1\right|\leq 6$

16) $|6-x|\geq 2$

17) $\left|\frac{x}{10}\right|<3$

18) $\left|\frac{x+7}{3}\right|>9$

19) $\left|\frac{4x-5}{2}\right|\leq 4$

20) $\frac{|x-8|}{3}\geq 1$

21) $3|x+9|<6$

22) $|x-6|+3>4$

23) $6|x+5|-2\leq 10$

24) $7-2|x+1|\geq -13$

Name_____ Period____ Date_____

Algebra 2: Review Worksheet A 2009-2010

Topic 1: Review of Basic Algebra

Directions: Calculators are not allowed.

1) Give the reciprocal of each of the following numbers.

A) $\frac{6}{7}$ B) 3

C) $-\frac{8}{5}$ D) $-2\frac{1}{2}$

2) Give the opposite of each of the following numbers.

A) $-3\frac{1}{2}$ B) 5 C) $\frac{1}{2}$

3) Use the distributive property to remove the parentheses from each expression.

A) $6(2c + 3)$ B) $3(6y - 2)$

C) $-4(7 - 8x)$ D) $(3n - 9)2$

E) $a(b + 5)$ F) $-3(2a + b)$

4) A) What is the product of -9 and 4?

B) What is the sum of 5 and $3\frac{1}{2}$?

C) What is the quotient of 8 and -4?

D) What is the quotient or -4 and 8?

E) What is the difference of -8 and 5?

F) What is the difference of 5 and -8?

5) Evaluate.

A) $4x^2 - x + 3$ when $x = -3$ B) $2a^2 + (a - b)$ when $a = 3$ and $b = -1$

C) $(2 - 5n) \div n^2$ when $n = 2$ D) $8y - 3c^2$ when $y = \frac{1}{4}$ and $c = -1$

6) Sketch a number line graph of each of the following inequalities.

A) $-1 < x < 4$ B) $x > 3$ or $x \leq -2$

7) Solve for the specified variable.

A) Solve for T: $P = \pi T$

B) Solve for n: $5n + 2k = 8$

C) Solve for B: $A = \frac{1}{2}Bh$

D) Solve for c: $A = 5(c - b)$

E) Solve for y: $ay - 3y = n$

F) Solve for x: $c^2x + 7x = T$

G) Solve for P: $L = Pn^3 + P$

H) Solve for m: $A = \frac{2}{3}(m + c)$

8) Solve for the variable in each of the following equations.

A) $5(x - 3) + 5 = -1$

B) $8x - (2x - 5) = 3x + 4$

C) $\frac{3}{4}n + \frac{1}{6}n = 4$

D) $-3(2 - 2y) + (3y - 1) = 2(4 - 2y)$

9) Solve for the variable in each of the following inequalities.

A) $4c - 3 < 9$

B) $-8y + 2(y. - 3) \geq 12$

C) $5n + 8 > 3n + 2$

D) $-y - (3y + 7) \leq 2(y + 1)$

E) $2 + (1 - x) > 4(2x - 3)$

F) $-\frac{1}{8}y + 2 \leq -5$

10) Solve for x in each of the following absolute value equations and inequalities.

A) $|3x + 2| = 10$

B) $\left|\frac{1}{2}x - 4\right| = 2$

C) $3|-2x + 3| = 6$

D) $5|x - 4| - 1 = 9$

E) $|3x + 5| \leq 1$

F) $|6 - 3x| > 6$

G) $3|2x - 4| < 9$

H) $2|6 + 2x| - 4 \geq 8$

I) $5 - 2|x - 3| = -3$

J) $3 + 2|x + 1| = 5$

K) $\frac{|x-5|}{2} < 3$

L) $\frac{|x+2|}{6} \geq 1$

M) $\left|\frac{2x+7}{5}\right| \leq 3$

N) $\left|\frac{4x-4}{3}\right| > 8$