MAT 055 Practice Test Chapters 9 and 15

All test answers are to be in simplest form. A calculator may be used.

Cell phones, iPads, and other electronic devices with scanning or photo ability may NOT be used. No notes, no books, no homework may be used while taking this test.

Solve the equation.

- 1) 4y 7 + y = 14 + 2y 4y
- 2) 5x (3x 1) = 2
- 3)  $\frac{1}{5}a \frac{1}{5} = -5$

Solve the formula for the specified variable.

5) 
$$V = \frac{1}{3}Bh$$
 for h

6) P = 2L + 2W for W

Determine whether the given value is a solution of the inequality.

Answer YES or NO and show work supporting your answer.

7)  $6(x - 4) \ge 6 - 9(x - 8), x = -5$ 

8) 
$$\frac{2}{5}x - \frac{1}{3} \le x + \frac{1}{10}, \quad x = \frac{2}{5}$$

9)  $-(4 - x) \ge -2(x + 3) - 1, x = 3$ 

Solve the inequality. Write the answer in interval notation.

10)  $1 + 4z - 1 \ge 3z + 5$ 

11) 
$$1(x - 2) - 27x < -6(4x + 4) - 3x$$

Solve and graph the compound inequality. Write the solution in interval notation.

- 12) 0(x + 8) < 10 and -2(x + 0) > 1
- 13)  $x 6 \ge -10 \text{ or } x 6 \le 10$
- 14)  $0 2x \ge -15 \text{ or } 3x 0 \ge 0$
- 15) 2 6x < -22 and 3x + 2 < -7

Solve the compound inequality. Graph the solution set using a number line. Write the solution in interval notation.

16) 
$$-26 < 5x + 4 \le -6$$

17) 
$$10 < \frac{2x - 10}{5} < 12$$

Solve the equation.

- 18) | k | 3 = 9
- 19) | 6m + 4 | + 6 = 14
- 20) | z | = -17
- 21) |y 4| = |6y|

Solve the absolute value inequality. Write your answer in interval notation.

22)	x - 1	> 2
<i>∠</i> ∠j	8	= Z

23) | -5x + 2 | > -5

- 25)  $|z + 8| \le 0$
- 26)  $|8 9x| \le 6$