

## **MATH 1310 Review for Test -2**

When:

Where: CASA Testing Center

Time: 50 minutes

Number of questions: 40

□ Multiple Choice Questions (total of 30 points)

□ Free Response Questions (total of 10 points)

*Note: For the free response part, please show your work neatly. Do not skip steps.*

What is covered: **Chapter 2 and Section 6.1.**

Do not forget to reserve a seat for Test – 2.

Take practice Test – 2! 10% of your best score will be added to your test grade.

When you take the test, you will see a score in your CASA grade sheet right away. That score is for the multiple choice part only. So, it is out of 30 points. The grade for the Free Response Part will be posted later, after the papers are graded.

Do not forget to bring your COUGAR ID when you go to the testing center.

Do not be late for your test. If you are too late for it (more than 10 minutes), they may not let you in. Plan to be at the testing center 10-15 minutes before your scheduled time. If you miss your scheduled time, login to your CASA account and try to reschedule; you can reschedule if there are any available seats.

**Remember the make up policy: NO MAKE UPS! If you miss the test, you will get a zero. The final will replace ONE missed test.**

**Example 1:** Solve:

$$-\frac{5}{12x} + \frac{7}{15x} = 1$$

**Example 2:** Solve the following system of equations for y:

$$4x + y = 47$$

$$6x - 2y = -10$$

**Example 3:** Solve the following equation:  $x^2 - x - 90 = 0$  .

**Example 4:** Solve the following equation:  $x^2 + 5x - 7 = 0$

**Example 5:** Solve the following **by completing the square**:  $x^2 - 8x + 10 = 0$ .

**Example 6:** State all solutions (can be complex) to the equation:  $x^2 + 40 = 0$ .

**Example 7:** Solve the equation  $x^4 + 16x^2 - 225 = 0$

**Example 8:** Solve the equation  $3x + 5 + \sqrt{2x + 5} = 4x$

**Example 9:** Write the following expression in the form  $a + bi$ :  $\frac{5}{2 - 4i}$

**Example 10:** Solve the following inequality and express your answer in interval notation.

$$-12x < 80$$

**Example 11:** Solve the following inequality and express your answer in interval notation.

$$-2 < 4x + 5 \leq 21$$

**Example 12:** Solve the inequality:  $|4x - 1| \geq 14$ .

**Example 13:** Solve the inequality:  $3|2x + 8| - 6 < -2$ .

**Example 14:** Solve the inequality:  $\frac{x}{x-5} < \frac{4}{3}$

**Example 15:** Find all solutions to the equation.  $\frac{1}{5}|2x - 1| = 4$

**Example 16:** The length of a rectangle is three times its width. If the perimeter of the rectangle is 160 feet, find the dimensions of the rectangle.

**Example 17:** Tom has a drawer with dimes and pennies in it. He has 8 more dimes than pennies. Tom counted his money and found that he has a total of \$2.45 in the drawer. How many dimes does Tom have?

