

Math 1010 Spring 2019 Sample Test 1

- 1) Solve: $x + 7 = -2$
- 2) Solve: $3.2x + 6.8 = 104.91$
- 3) Solve: $2 - 4x = 12$
- 4) Solve by factoring: $x^2 - x = 20$
- 5) Solve by completing the square: $x^2 + 16x + 5 = 0$
- 6) Solve using the quadratic formula: $2x^2 - 3x - 7 = 0$
- 7) Solve: $(2x + 1)^2 - 16 = 0$

Solve

- 8) $|7x - 8| = 4$
- 9) $-3 \leq 5x + 3 \leq 7$
- 10) $|x - 4| \leq 5$
- 11) $2x + 7 > 8x - 1$
- 12) Simplify to $a + bi$ form. $(3 - 6i)(5 + i)$
- 13) Simplify to $a + bi$ form. $\frac{2-5i}{7+2i}$

The length of a rectangular field is 50 feet longer than its width, and the area of the field is 21,875 square feet. (This is for questions 14, 15, and 16)

- 14) Draw a representative sketch of this field and label the dimensions using one variable.
- 15) Express the area (21,875 square feet) as a product of the length and the width using numbers and one variable.
- 16) Solve the equation, then state the field's dimensions using a grammatically correct English sentence.
- 17) Find the slope of the line through points (2,5) and (-7, 18).
- 18) Find the equation of the line with slope $m = -4$ through the point (-1,5).
- 19) Find the equation of the line through the points (2, 3) and (-6, 9).
- 20) Find the slope and y-axis intercept of the line $3y + 2x - 11 = 0$.