

College Algebra

kschulte@clcmn.edu

Take Home Practice Quiz Chapter 2

Print Name: _____

Answers in the ACE Department. Must see a tutor for answers.

Show all work. 5 points each. One (1) point for answers only. Neatness counts for 5 points.

You will need a separate piece of paper. Circle your answers.

Solve the equations by completing the square. Leave answers in exact form.(2-5)

1) $x^2 - 4x - 3 = 0$

2) $x^2 + 10x = 6x$

3) $4x^2 - 3x + 2 = 0$

Solve the equations using the quadratic equation. Leave answers in exact form.(2-5)

4) $8x^2 - 6x + 2 = 0$ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

5) $x^2 - 2x - 6 = 0$

Solve the quadratic equation using any method (factoring, completing the square, or quadratic equation). Leave answers in exact form.(2-5)

6) $9(x + 5)^2 + 16 = 0$

7) $3x^2 - 13x + 169 = 0$

8) $x^2 - 8x + 7 = 0$

9) $x^2 - 4x + 5 = 0$

Write the equation of the parabola in vertex form that satisfies the given conditions.(2-3)

10) Vertex: (-2, -4); Point on the graph: (0,0)

11) Vertex: (-2, -1); Point on the graph: (1, 8)

12) Vertex: (2, 1); $a = 1$

Perform the operation and write the result in standard form (a + bi).(2-4)

$$13) (3 - 4i)^2 =$$

$$14) (2 - i)(4 + 3i) =$$

$$15) \frac{2 - i}{4i} =$$

$$16) \frac{5 - i}{5 + i} =$$

$$17) \frac{4 + 5i}{3 - 7i} =$$

Simplify the expression.(2-4)

$$18) i^7 =$$

$$19) i^{24} =$$

$$20) (-i)^4 =$$

Solve algebraically.(2-6)

$$21) \sqrt{5x + 6} + 6 = 0$$

$$22) \sqrt{2x + 3} = \sqrt{x^2 - 12}$$

$$23) \sqrt{7x - 2} - \sqrt{x + 1} = \sqrt{3}$$

$$24) 6x^2 - 5x^1 - 6 = 0$$

$$25) y^{1/2} - 3y^{1/4} + 2 = 0$$

Solve and write answers in interval notation. (2-7)

26) $x^2 + x < 12$

27) $-10x - 1 \geq 3x^2$

28) $|10 + 4s| < 6$

Write each statement as an absolute value inequality. (2-7)

29) w is more than four units from 2

30) z is less than eight units from -2

31) m is not more than six units from 1

Find the equation of the line described. Write your answer in slope-intercept form. (2-1)

32) Has x intercept -4 and y intercept -5

33) Goes through $(3, 5)$ and parallel to $3x + 4y = 8$

34) Goes through $(4, 6)$ and $(4, -3)$

35) Vertical, goes through $(-7, 12)$