Student: _____ **Instructor:** Fouad Khoury **Assignment:** Quiz 1.3
Date: _____ **Course:** Math-1314

1. Express the number in terms of i.

$-\sqrt{-4}$

- **A.** $-2i$
- **B.** $-\sqrt{2}\,i$
- **C.** $2i$
- **D.** $\sqrt{2}\,i$

2. Express the number in terms of i.

$\sqrt{-20}$

- **A.** $-2\sqrt{5}\,i$
- **B.** $5\sqrt{2}\,i$
- **C.** $2\sqrt{5}\,i$
- **D.** $10i$

3. Solve.

$(4x-9)(4x+7)=0$

- **A.** $-\frac{4}{9}, \frac{4}{7}$
- **B.** $-\frac{9}{4}, \frac{7}{4}$
- **C.** $\frac{4}{9}, -\frac{4}{7}$
- **D.** $\frac{9}{4}, -\frac{7}{4}$

4. Solve.

$x^2 + -14x + 13 = 0$

- **A.** 12, 1
- **B.** $-13, -1$
- **C.** $\sqrt{13}, -\sqrt{13}$
- **D.** 13, 1

5. Solve.

$5x^2 = 15x$

- **A.** 5, 3
- **B.** 3
- **C.** 7.5
- **D.** 0, 3

6. Solve.

$5x^2 = 65$

- **A.** 14
- **B.** ± 13
- **C.** 32.5
- **D.** $\pm\sqrt{13}$

7. Solve.

$x^2 + 6x + 9 = 13$

- **A.** 10
- **B.** $3 + \sqrt{13}, 3 - \sqrt{13}$
- **C.** $-3 + \sqrt{13}, -3 - \sqrt{13}$
- **D.** $\sqrt{13}, -\sqrt{13}$

8. Solve.

$2x^2 + 30 = 0$

- **A.** 16
- **B.** 15
- **C.** $\pm\sqrt{15}\,i$
- **D.** $\pm 15\,i$

9. Solve by completing the square to obtain exact solutions.

$x^2 + 4x = 3$

- **A.** $-1 \pm \sqrt{7}$
- **B.** $-2 \pm 2\sqrt{7}$
- **C.** $2 + \sqrt{7}$
- **D.** $-2 \pm \sqrt{7}$

10. Solve by completing the square to obtain exact solutions.

$x^2 = 5 - 8x$

- **A.** $-4 \pm 2\sqrt{21}$
- **B.** $-1 \pm \sqrt{21}$
- **C.** $-4 \pm \sqrt{21}$
- **D.** $4 + \sqrt{21}$

11. Use the quadratic formula to find the exact solutions.

$x^2 - 6x + 13 = 0$

- **A.** $3 \pm 2i$
- **B.** $-3 \pm 2i$
- **C.** 5, 1
- **D.** $6 \pm 4i$

12. Use the quadratic formula to find the exact solutions.

$x^2 + 35 = 5x$

- **A.** $\frac{5}{2} \pm \frac{\sqrt{115}}{2} i$
- **B.** $\frac{5}{2} \pm \frac{5}{2} i$
- **C.** $-5, 5$
- **D.** 0, 5

13. Find the zeros of the function. Give exact answers.

$f(x) = x^2 - 5x - 5$

- **A.** $\frac{-5 \pm \sqrt{5}}{2}$
- **B.** $\frac{-5 \pm 3\sqrt{5}}{2}$
- **C.** $\frac{5 \pm \sqrt{5}}{2}$
- **D.** $\frac{5 \pm 3\sqrt{5}}{2}$

14. Find the zeros of the function. Give exact answers.

$f(x) = x^2 - 12x + 45$

- **A.** $6 \pm 3i$
- **B.** $12 \pm 6i$
- **C.** $9, 3$
- **D.** $-6 \pm 3i$

15. Find the zeros of the function. Give exact answers.

$f(x) = 3x^2 - x + 4$

- **A.** $-\frac{1}{3}, \frac{1}{4}$
- **B.** $\frac{1}{3} \pm \frac{\sqrt{47}}{3}i$
- **C.** $1 \pm \sqrt{47}$
- **D.** $\frac{1}{6} \pm \frac{\sqrt{47}}{6}i$