

Student: \_\_\_\_\_  
Date: \_\_\_\_\_

Instructor: Fouad Khoury  
Course: Math-1314

Assignment: Quiz 1.6

1. Solve.

$$3x^3 + x^2 - 3x - 1 = 0$$

- ☐ A.  $1, -1, -\frac{1}{3}$
- ☐ B.  $-1, 3$
- ☐ C.  $1, -1$
- ☐ D.  $1, \frac{1}{3}$

2. Solve.

$$x - 5\sqrt{x} - 24 = 0$$

- ☐ A.  $-8i, 8i$
- ☐ B.  $64$
- ☐ C.  $-64, 64, -3i, 3i$
- ☐ D.  $-64, -9, 9, 64$

3. Solve.

$$x^4 - 19x^2 + 48 = 0$$

The solution is  $x =$  \_\_\_\_\_.

(Simplify your answer. Type an exact answer, using radicals as needed. Express complex numbers in terms of  $i$ . Use a comma to separate answers as needed.)

4. Solve  $\sqrt[3]{x+3} = 2$ .

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- ☐ A. The solution is  $x =$  \_\_\_\_\_.  
(Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)
- ☐ B. There is no solution.

5. Solve.

$$x - 8 = \sqrt{x - 6}$$

Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- ☐ A. The solution is  $x =$  \_\_\_\_\_.  
(Simplify your answer. Use a comma to separate answers as needed.)
- ☐ B. There is no solution.

6. Solve  $\sqrt{4y+4} = \sqrt{3y+6}$ .

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Select the correct choice below and, if necessary, fill in the answer box to complete your choice.

- ☐ **A.** The solution is  $y =$  \_\_\_\_\_.  
(Simplify your answer. Type an integer or a fraction. Use a comma to separate answers as needed.)
- ☐ **B.** There is no solution.