

**East Los Angeles College**  
**Department of Mathematics**  
**Math 125**  
**Practice Test 3**

**Show all work for credit.**

Solve the following equations for  $x$  by using the square root formula.

1.  $x^2 = 9$

2.  $x^2 = -4$

3.  $3x^2 + 2 = 8$

4.  $2x^2 - 12 = 22$

5.  $(x - 3)^2 - 3 = 8$

6.  $2(x + 4)^2 = -32$

Solve the following equations by using the quadratic formula.

7.  $x^2 - 4x + 7 = 0$

8.  $2x^2 - x + 3 = 0$

Solve the following equations by completing the square.

9.  $x^2 - 12x - 7 = 0$

10.  $-3x^2 + 6x - 15 = 0$

Solve the following Radical Equations.

11.  $\sqrt{x - 6} - 2 = 5$

12.  $4\sqrt{x} + 12 = 16$

13.  $\sqrt{4x - 1} = \sqrt{x + 4}$

14.  $x - 4 = \sqrt{x + 2}$

15.  $\sqrt[3]{x + 8} = -4$

16.  $2\sqrt[3]{x} - 3 = 3$

Write the following quadratic equations in two variables in graphing format.

$$y = a(x - h)^2 + k$$

17.  $y = x^2 + 6x - 5$

18.  $y = -3x^2 + 12x - 9$

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$$y = 3x^2 + 12x - 9$$

Determine the:

19. Vertex

20. Axis of Symmetry

21. Opens Up or Opens Down

22. X-intercepts

23. y-intercepts

24. Sketch the parabola

25. What is your name?

1		14	
2		15	
3		16	
4		17	
5		18	
6		19	
7		20	
8		21	
9		22	
10		23	
11		24	Use Graph
12		25	
13			

24.

