Name: _____

UNIT #7 Study Guide
COMMON CORE ALGEBRA I

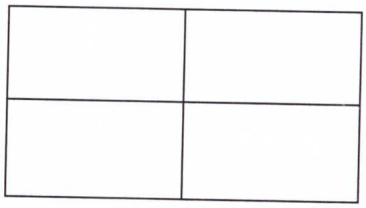
Study Guide

PART I QUESTIONS: Show all of your work.

1. Write an Monomial expression. Write a trinomial expression.

2. Explain when to use the Circle Method vs. the Box Method.

3. Which of the following trinomials is equivalent to $(4x-5)^2$?



4. What is $f(x) + g(x)$, if $f(x) = 4x^2 + 6x - 3$ and $g(x) = -3x^2 - 8x - 4$

5. Which of the following is the value of $f(x) = 3x^2 - 4x - 2$ when $F(8)$?

6. Which of the following is equivalent to the expression shown below? $(2x+1)(2x-1)$

7. Which of the following is equivalent to the expression shown below? $(x-6)(x+6)$

8. From questions 6-7, add the two expressions (answers) together.

9. Which of the following is the correct distributed form of the binomial $2x^2(4x+5)$

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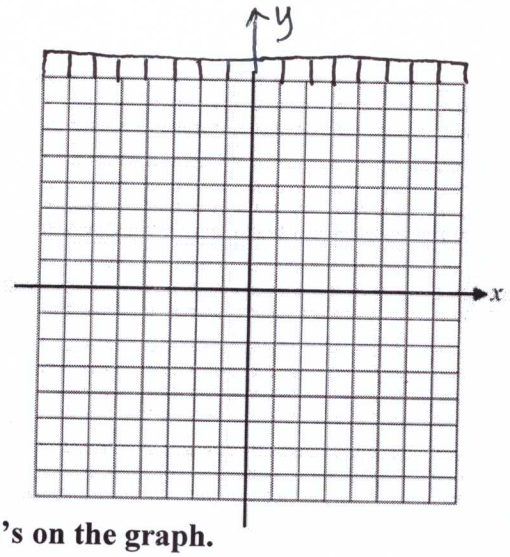
10. What is the product of $(3x-3)$ and $(x+1)$?

11. Make a table and graph the answer from #10.

x	F(x)
-1	
	9



12. What are the zero's (roots) of the parabola from #10? **BOX the Zero's on the graph.**

13. What is the vertex and axis of symmetry of the quadratic from #10? **CIRCLE the Vertex on the graph. DRAW the axis of symmetry.**

14. Write the expression below in simplest form. $(4x^2-7x+3)-(5x^2+2x-6)$

15. Which of the following is equivalent to $8\sqrt{52}$?

Does $8\sqrt{52} = 16\sqrt{13}$?

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Unit 7

16. Which of the following numbers is irrational? Simplify each answer.

Is $\sqrt{4} + \frac{1}{3}$ irrational ? ___ Why ?

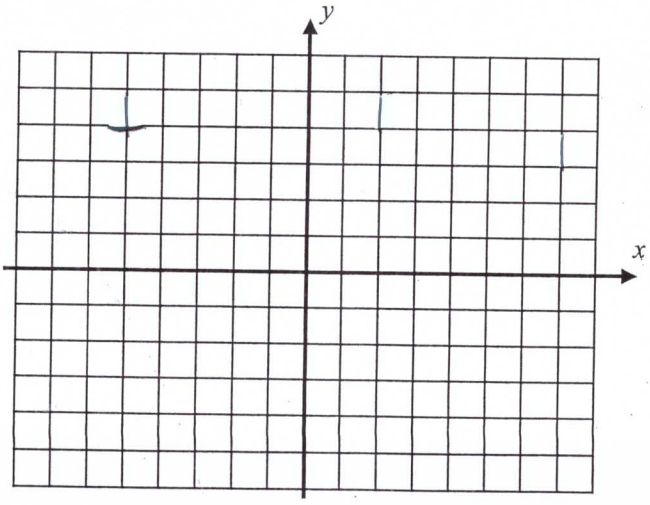
Is $\sqrt{3} + 5$ irrational ? ___ Why ?

17. Solve the following quadratic equation for x.

$(x+3)^2 = 49$

No substitution allowed.

18. Graph the function $f(x) = 4 - \sqrt{x+5}$ on the grid below.



19. Write your table from #18.

x	f(x)