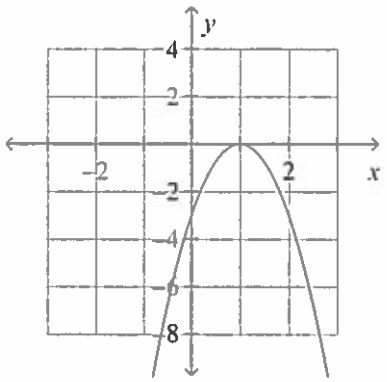
Name: _____ Class: _____ Date: _____ A

Chapter 10 pt 2 Practice Test (Sections 10.6-10.7)

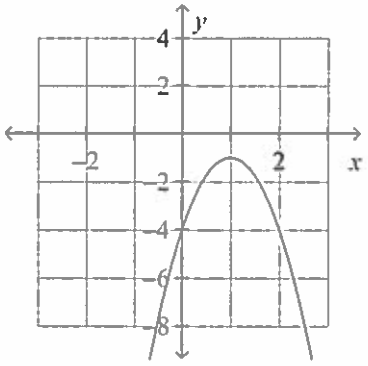
Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. For which discriminant is the graph possible?



a. $b^2 - 4ac = -4$ b. $b^2 - 4ac = 3$ c. $b^2 - 4ac = 0$

____ 2. For which discriminant is the graph possible?



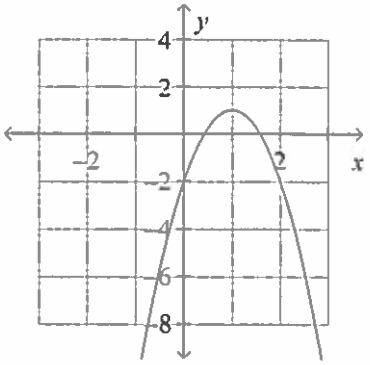
a. $b^2 - 4ac = -12$ b. $b^2 - 4ac = 0$ c. $b^2 - 4ac = 2$

____ 3. Use the discriminant to find the <u>number</u> of solutions for the equation. $x^2 - 10x + 25 = 0$
(YOU DO NOT HAVE TO SOLVE.)
a. 2 b. 0 c. 1

____ 4. Use the discriminant to find the <u>number</u> of solutions for the equation. $x^2 + 13 = 0$
(YOU DO NOT HAVE TO SOLVE.)
a. 1 b. 2 c. 0

Name: _____ A

5. For which discriminant is the graph possible?



a. $b^2 - 4ac = 0$ b. $b^2 - 4ac = -6$ c. $b^2 - 4ac = 4$

6. What is the equation for the axis of symmetry?

7. What is the expression for evaluating the discriminant?

8. What is the Quadratic Formula?

9. Use any method to solve the equation. $x^2 + 10x + 24 = 0$

$x =$ _____

$x =$ _____

10. Use any method to solve the equation. $2x^2 + 2x - 4 = 0$

$x =$ _____

$x =$ _____

11. Use the Quadratic Formula to solve the equation. $6y^2 - 3y = 9$

$x =$ _____

$x =$ _____

Solve the equation. Use any method you wish. Round to the nearest hundredth if necessary.

12. $x^2 + 3x - 5 = 0$

$x =$ _____

$x =$ _____

13. $x^2 - 4x = 5$

$x =$ _____

$x =$ _____

14. Solve the equation using the Quadratic Formula.
$x^2 + 5 = 41$

$x =$ _____

$x =$ _____

15. Solve the equation using whatever method you wish.
$4x^2 = 36$

$x =$ _____

$x =$ _____

16. Describe at least 3 details (how it opens, width, axis, vertex, roots, etc.) about the function, $f(x) = -5x^2 + 20x - 10$.
a.) opens up, wide, axis of symmetry of 2, vertex of (2, 10), 1 root
b.) opens down, skinny, axis of symmetry of 2, vertex of (2, 10), 2 roots
c.) opens down, wide, axis of symmetry of 10, vertex of (10,2), no roots

Simplify the radical expression.

17. $\sqrt{160}$

18. $\sqrt{144}$

19. $\sqrt{250}$

20. Use the Quadratic Formula to solve the equation. Put your answer in simplest radical form.
$7x^2 - 16x - 28 = 0$