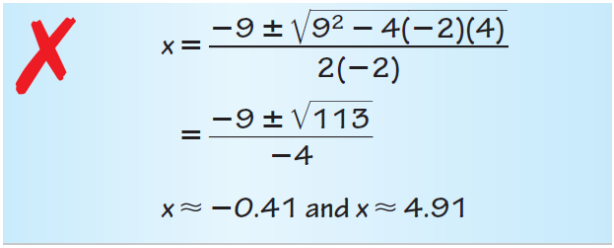
Name: _____

13.REV.4 – End of Unit Review

Past due on: _____ Period: _____

1. Describe and correct the error made in solving the equation $-2x^2 + 9x = 4$ using the Quadratic Formula.

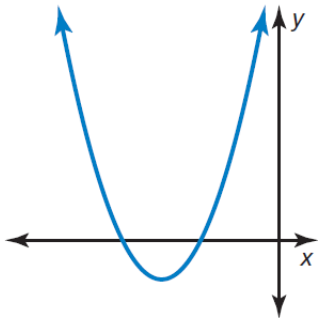


$$x = \frac{-9 \pm \sqrt{9^2 - 4(-2)(4)}}{2(-2)}$$

$$= \frac{-9 \pm \sqrt{113}}{-4}$$

$$x \approx -0.41 \text{ and } x \approx 4.91$$

2. Which of the functions could be represented by the graph? Explain your reasoning.



$h(x) = (x + 2)^2 + 3$

$g(x) = -\frac{1}{2}(x - 8)(x - 4)$

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

$m(x) = (x + 2)(x + 4)$

Solve the quadratic equation using ANY algebraic method: factoring, square roots, completing the square, or the quadratic formula. If necessary, approximate your solutions to the nearest hundredth.

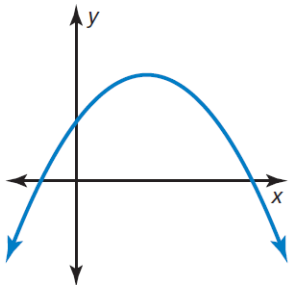
3. $-2x^2 + 3x + 7 = 0$

4. $x^2 - 6x = 10$

5. $(4x + 3)^2 = 21$

6. $x^2 + 8x + 13 = 1$

7. Which of the functions could be represented by the graph? Explain your reasoning.



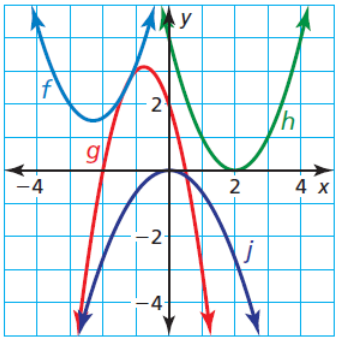
$r(x) = -\frac{1}{3}(x - 5)(x + 1)$

$q(x) = (x + 1)^2 + 4$

$p(x) = -2(x - 2)(x - 6)$

$n(x) = -(x - 2)^2 + 9$

8. The graphs of four quadratic functions are shown. Which equation has a negative discriminant? Explain your reasoning.



Use the box method to factor the trinomial completely.

9. $3h^2 + 11h + 6$

10. $8m^2 + 30m + 7$

11. $4y^2 + 4y - 3$

12. $18v^2 - 15v - 18$

Factor each difference of two squares completely.

13. $25 - 4x^2$

14. $16x^2 - 169y^2$

15. $64 - 81d^2$