

TEKS A.10.A



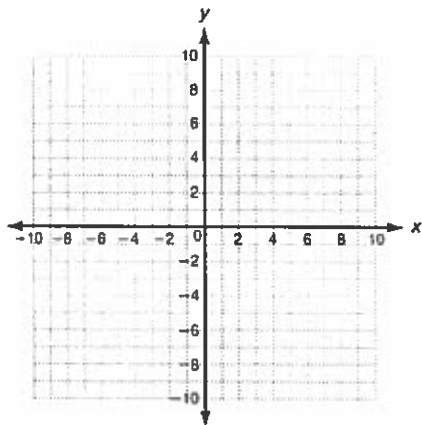
LESSON
9-5

Practice B

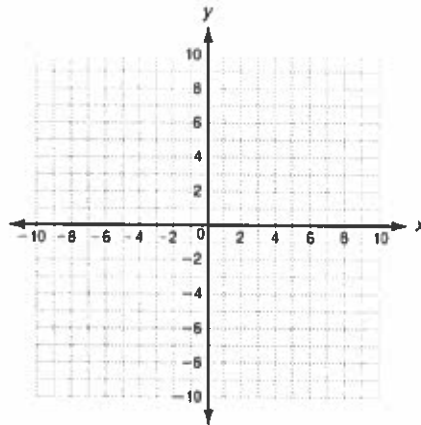
Solving Quadratic Equations by Graphing

Solve each equation by graphing the related function.

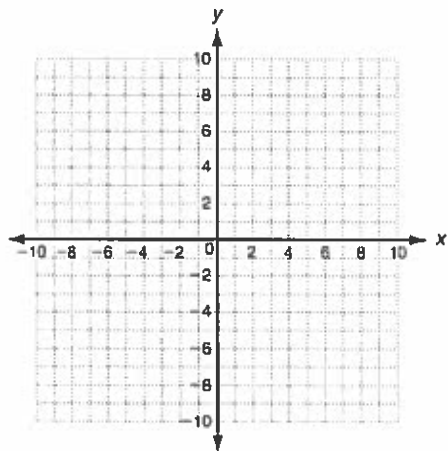
1. $x^2 - 6x + 9 = 0$



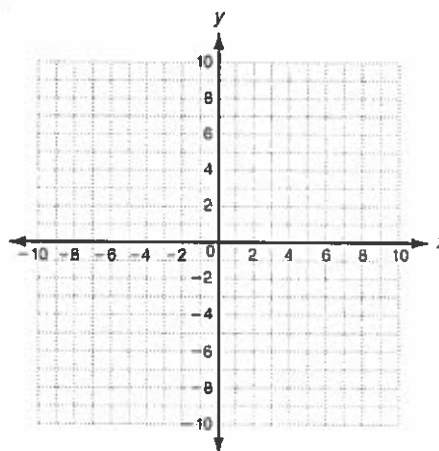
2. $x^2 = 4$



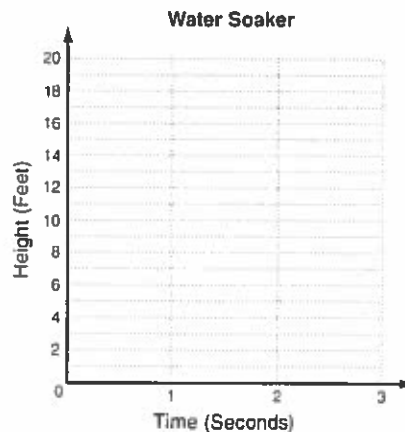
3. $2x^2 + 4x = 6$



4. $x^2 = 5x - 10$



5. Water is shot straight up out of a water soaker toy. The quadratic function $y = -16x^2 + 32x$ models the height in feet of a water droplet after x seconds. How long is the water droplet in the air?



**Practice B****Solving Quadratic Equations by Factoring**

Use the Zero Product Property to solve each equation. Check your answers.

1. $(x - 1)(x - 5) = 0$

$x - 1 = 0$ or $x - 5 = 0$

$x = \underline{\quad}$ or $x = \underline{\quad}$

2. $(x - 2)(x - 9) = 0$

$x - 2 = 0$ or $x - 9 = 0$

$x = \underline{\quad}$ or $x = \underline{\quad}$

3. $(x - 2)(x + 4) = 0$

4. $(2x + 1)(x - 6) = 0$

Solve each quadratic equation by factoring.

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

6. $x^2 + 4x + 3 = 0$

7. $x^2 + 5x - 6 = 0$

8. $x^2 + 11x + 24 = 0$

9. $x^2 - 12x + 11 = 0$

10. $x^2 + 18x - 65 = 0$

11. $x^2 - 4x - 12 = 0$

12. $x^2 + 11x + 10 = 0$

13. $x^2 + 12x + 35 = 0$

14. $2x^2 - 3x - 5 = 0$

15. $3x^2 - 5x - 2 = 0$

16. $x^2 = 3x + 40$

17. $x^2 - 14 = 5x$

18. $2x - 1 = -8x^2$

19. $x = 10x^2 - 2$

20. $2x^2 = 13x + 7$

21. $6x^2 + x = 5$

22. $x^2 = 5x$

23. The height of a flare fired from the deck of a ship in distress can be modeled by $h = -16t^2 + 104t + 56$, where h is the height of the flare above water and t is the time in seconds. Find the time it takes the flare to hit the water.