Name_____ Date _____

3.3 Practice A

In Exercises 1–4, solve the equation using square roots. Check your solution(s).

1. $x^2 - 4x + 4 = 9$

2. $y^2 - 12y + 36 = 49$

3. $n^2 - 20n + 100 = 40$

4. $p^2 + 14p + 49 = 2$

In Exercises 5–8, find the value of *c* that makes the expression a perfect square trinomial. Then write the expression as the square of a binomial.

5. $x^2 + 8x + c$

6. $x^2 + 14x + c$

7. $y^2 - 18y + c$

8. $y^2 + 26y + c$

In Exercises 9–14, solve the equation by completing the square.

9. $x^2 + 8x + 5 = 0$

10. $h^2 - 10h - 4 = 0$

11. $t^2 - 12t + 10 = 0$

12. $s^2 + 14s - 9 = 0$

13. $y(y + 6) = 2$

14. $g(g + 10) = -6$

In Exercises 15–18, determine whether you would use factoring, square roots, or completing the square to solve the equation. Explain your reasoning. Then solve the equation.

15. $(x - 3)^2 = 25$

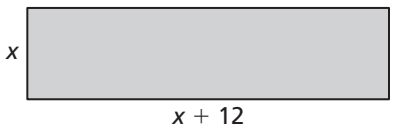
16. $x^2 + 5x + 4 = 0$

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

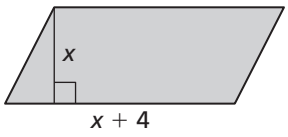
18. $x^2 - 10x - 8 = 0$

In Exercises 19 and 20, find the value of *x*.

19. Area of rectangle $= 64$



20. Area of parallelogram $= 20$



In Exercises 21 and 22, write the quadratic function in vertex form. Then identify the vertex.

21. $f(x) = x^2 + 10x + 32$

22. $g(x) = x^2 - 6x - 2$