NAME _____ DATE _____ PERIOD _____

8-6 Practice

Factoring Quadratic Trinomials

Factor each polynomial, if possible. If the polynomial cannot be factored using integers, write *prime*.

1. $a^2 + 10a + 24$

2. $h^2 + 12h + 27$

3. $4x^2 + 4x - 3$

4. $g^2 - 2g - 63$

5. $8w^2 - 18w + 9$

6. $y^2 + 4y - 60$

7. $b^2 + 4b - 32$

8. $n^2 - 3n - 28$

9. $t^2 + 4t - 45$

10. $15n^2 - n - 28$

11. $d^2 - 16d + 63$

12. $x^2 - 11x + 24$

13. $q^2 - q - 56$

14. $x^2 - 6x - 55$

15. $18h^2 + 15h - 18$

16. $48 - 16g + g^2$

17. $j^2 - 9jk - 10k^2$

18. $m^2 - mv - 56v^2$

19. $2b^2 + 10b + 12$

20. $3g^2 + 8g + 4$

21. $x^2 + 14x + 33$

22. $8b^2 - 5b - 10$

23. $6m^2 + 7m - 3$

24. $10d^2 + 17d - 20$

25. $6a^2 - 17a + 12$

26. $w^2 + w - 56$

27. $10x^2 - 9x + 6$

28. $z^2 - 11z + 30$

29. $10x^2 + 21x - 10$

30. $9r^2 + 15r + 6$

31. $12y^2 - 4y - 5$

32. $14k^2 - 9k - 18$

33. $8z^2 + 20z - 48$

34. $12q^2 + 34q - 28$

35. $32 + 18r + r^2$

36. $12p^2 - 22p - 20$

37. Find all values of k so that the trinomial $x^2 + kx - 35$ can be factored using integers.

38. CONSTRUCTION A construction company is planning to pour concrete for a driveway. The area of the driveway is represented by the expression $w^2 + 14w - 32$. Factor the expression for the area of the driveway.

39. TENNIS Jacob hit a tennis ball into the air. The height of the tennis ball in feet is represented by the expression $-16t^2 - 16t + 32$, t is time in seconds. Factor the expression for the height of the tennis ball.