

Factor the following trinomials. If the trinomial cannot

1. $b^2 + 8b + 7$

$$(b+1)(b+7)$$

3. $m^2 + m - 90$

$$(m+10)(m-9)$$

5. $n^2 - 10n + 9$

$$(n-9)(n-1)$$

7. $m^2 + 2m - 24$

$$(m+6)(m-4)$$

9. $k^2 - 13k + 40$

$$(k-8)(k-5)$$

11. $n^2 - n - 56$

$$(n-8)(n+7)$$

13. $b^2 - 6b + 8$

$$(b-2)(b-4)$$

15. $2n^2 + 6n - 108$

$$2(n-6)(n+9)$$

17. $2k^2 + 22k + 60$

$$2(k+5)(k+6)$$

19. $p^2 + 11p + 10$

$$(p+10)(p+1)$$

21. $2p^2 + 2p - 4$

$$2(p-2)(p+2) \text{ or } 2(p-1)(p+2)$$

2. $x^2 - 11x + 10$

$$(x-1)(x-10)$$

4. $n^2 + 4n - 12$

$$(n-2)(n+6)$$

6. $b^2 + 16b + 64$

$$(b+8)(b+8)$$

8. $x^2 - 2x - 24$

$$(x-6)(x+4)$$

10. $a^2 + 11a + 18$

$$(a+2)(a+9)$$

12. $n^2 - 5n + 6$

$$(n-2)(n-3)$$

14. $n^2 + 6n + 8$

$$(n+2)(n+4)$$

16. $5n^2 + 10n + 20$

can only factor out a gcf
 $5(n^2 + 2n + 4)$

18. $a^2 - a - 90$

$$(a+9)(a-10)$$

20. $5x^2 - 30x + 40$

$$5x^2 - 30x + 40 = 5(x-10)(x-4) \text{ or } 5(x-2)(x-4)$$

22. $4x^2 - 4x - 8$

$$4(x-2)(x+1)$$

$$23. x^2 - 15x + 50$$

$$(x-5)(x-10)$$

$$25. p^2 + 3p - 18$$

$$(p+6)(p-3)$$

$$27. 3p^2 - 2p - 5$$

$$(3p-5)(p+1)$$

$$29. 3n^2 - 8n + 4$$

$$(3n-2)(n-2)$$

$$31. 2x^2 + 11x + 5$$

$$(2x+1)(x+5)$$

$$33. 7a^2 + 53a + 28$$

$$(7a+4)(a+7)$$

$$35. 15n^2 - 27n - 6$$

$$(5n+3)(n-2)$$

$$3(5n+1)(n-2)$$

$$37. 4n^2 - 15n - 25$$

$$(4n+5)(n-5)$$

$$39. 4n^2 - 17n + 4$$

$$(4n-1)(n-4)$$

$$41. 6x^2 + 37x + 6$$

$$(6x+1)(x+6)$$

$$43. 6n^2 + 5n - 6$$

$$(2n+3)(3n-2)$$

$$24. v^2 - 7v + 10$$

$$(v-2)(v-5)$$

$$26. 6x^2 + 66x + 60$$

$$6(x^2+11x+10)$$

$$6(x+10)(x+1)$$

$$28. 2n^2 + 3n - 9$$

$$(2n-3)(n+3)$$

$$30. 5n^2 + 19n + 12$$

$$(5n+4)(n+3)$$

$$32. 2n^2 + 5n + 2$$

$$(2n+1)(n+2)$$

$$34. 9k^2 + 66k + 21$$

$$3(3k^2+22k+7)$$

$$3(3k+1)(k+7)$$

$$36. 5x^2 - 18x + 9$$

$$(5x-3)(x-3)$$

$$38. 4x^2 - 35x + 49$$

$$(4x-7)(x-7)$$

$$40. 6x^2 + 7x - 49$$

$$(2x+7)(3x-7)$$

$$42. -6a^2 - 25a - 25$$

$$-(6a^2+25a+25)$$

$$-(2a+5)(3a+5)$$

$$44. 16b^2 + 60b - 100$$

$$4(4b-5)(b+5)$$