Name _____ Date _____

Additional Exercises 7.2
Form I
Factoring Trinomials Whose Leading Coefficient is 1

Factor each trinomial, or state that the trinomial is prime.

1. $x^2 + 5x + 4$ 1. _____

2. $x^2 + 7x + 12$ 2. _____

3. $y^2 + 8y + 12$ 3. _____

4. $a^2 - 6a + 8$ 4. _____

5. $x^2 - 8x + 15$ 5. _____

6. $y^2 - 8y + 7$ 6. _____

7. $a^2 + a - 6$ 7. _____

8. $x^2 - 3x - 40$ 8. _____

9. $m^2 - 3m - 4$ 9. _____

10. $a^2 + 4ab - 21b^2$ 10. _____

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11. $a^2 - 6xy - 27y^2$ 11. _____

12. $x^2 - 6xy - 27y^2$ 12. _____

13. $a^2 - 11a + 30$ 13. _____

14. $x^2 + 11x + 28$ 14. _____

Factor each trinomial completely.

15. $2x^2 - 4x - 6$ 15. _____

16. $3a^2 - 15a + 18$ 16. _____

17. $x^3 + 7x^2 + 6x$ 17. _____

18. $x^3y + 2x^2y - 35xy$ 18. _____

19. $4x^2 - 32x + 48$ 19. _____

20. $8a^3 + 56a^2 + 96a$ 20. _____

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Additional Exercises 7.2
Form II
Factoring Trinomials Whose Leading Coefficient is 1

Factor each trinomial, or state that the trinomial is prime.

1. $x^2 + 10x + 16$ 1. _____

2. $x^2 - 10x + 24$ 2. _____

3. $x^2 - x - 30$ 3. _____

4. $a^2 + 10a + 21$ 4. _____

5. $y^2 + 9y - 36$ 5. _____

6. $x^2 - 15x + 54$ 6. _____

7. $x^2 + 5x - 36$ 7. _____

8. $a^2 + 14a + 33$ 8. _____

9. $m^2 + 6m + 10$ 9. _____

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

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11. $y^2 + y - 42$ 11. _____

12. $a^2 + 9a + 20$ 12. _____

13. $x^2 - 9x - 8$ 13. _____

14. $y^2 - 12y + 32$ 14. _____

Factor each trinomial completely.

15. $5x^2 + 10x - 15$ 15. _____

16. $4x^2 + 28x + 48$ 16. _____

17. $x^4 + 2x^3 - 48x^2$ 17. _____

18. $2a^3 + 18a^2 + 40a$ 18. _____

19. $x^3y^2 + 3x^2y^2 - 40xy^2$ 19. _____

20. $6y^3 + 66y^2 + 148y$ 20. _____

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Additional Exercises 7.2
Form III
Factoring Trinomials Whose Leading Coefficient is 1

Factor each trinomial, or state that the trinomial is prime.

1. $x^2 + 14x + 45$ 1. _____

2. $a^2 - 5a - 24$ 2. _____

3. $y^2 + 9y + 14$ 3. _____

4. $x^2 - 18x + 32$ 4. _____

5. $x^2 - 13x + 12$ 5. _____

6. $y^2 - 3y - 88$ 6. _____

7. $a^2 + 15ab - 16b^2$ 7. _____

8. $x^2 + 3x + 12$ 8. _____

9. $y^2 - 16y + 39$ 9. _____

10. $a^2 - 25a + 136$ 10. _____

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11. $x^2 + 21xy + 54y^2$ 11. _____

12. $y^2 - 8y + 12$ 12. _____

13. $a^2 - 11a + 28$ 13. _____

14. $x^2 - 11xy - 60y^2$ 14. _____

Factor each trinomial completely.

15. $4x^3 - 8x^2 + 16x$ 15. _____

16. $5x^2 - 30x - 80$ 16. _____

17. $3a^3 + 27a^2 + 60a$ 17. _____

18. $x^4y + 2x^3y - 24x^2y$ 18. _____

19. $6y^3 - 30y^2 - 216$ 19. _____

20. $8x^3 + 56x^2y + 96xy^2$ 20. _____