

Factoring Quadratic Expressions (A)

Name: _____

Date: _____

Factor each expression.

1. $48x^2 - 56x - 24$

11. $27x^2 - 279x + 504$

2. $72x^2 - 536x + 224$

12. $-18x^2 + 116x + 70$

3. $-6x^2 + 384$

13. $12x^2 + 14x - 10$

4. $24x^2 + 28x - 196$

14. $54x^2 + 549x + 567$

5. $-72x^2 - 712x - 576$

15. $24x^2 + 116x + 140$

6. $4x^2 - 4x - 80$

16. $-12x^2 - 10x + 8$

7. $16x^2 - 42x - 18$

17. $-16x^2 - 68x - 42$

8. $-49x^2 - 413x - 168$

18. $-48x^2 - 252x - 294$

9. $12x^2 - 40x + 12$

19. $3x^2 + 12x + 9$

10. $25x^2 + 35x - 120$

20. $56x^2 + 42x - 35$

Factoring Quadratic Expressions (A) Answers

Name: _____

Date: _____

Factor each expression.

1. $48x^2 - 56x - 24$

$8(3x + 1)(2x - 3)$

2. $72x^2 - 536x + 224$

$8(x - 7)(9x - 4)$

3. $-6x^2 + 384$

$-6(x + 8)(x - 8)$

4. $24x^2 + 28x - 196$

$4(3x - 7)(2x + 7)$

5. $-72x^2 - 712x - 576$

$-8(x + 9)(9x + 8)$

6. $4x^2 - 4x - 80$

$4(x + 4)(x - 5)$

7. $16x^2 - 42x - 18$

$2(8x + 3)(x - 3)$

8. $-49x^2 - 413x - 168$

$-7(7x + 3)(x + 8)$

9. $12x^2 - 40x + 12$

$4(3x - 1)(x - 3)$

10. $25x^2 + 35x - 120$

$5(5x - 8)(x + 3)$

11. $27x^2 - 279x + 504$

$9(x - 8)(3x - 7)$

12. $-18x^2 + 116x + 70$

$-2(9x + 5)(x - 7)$

13. $12x^2 + 14x - 10$

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

14. $54x^2 + 549x + 567$

$9(x + 9)(6x + 7)$

15. $24x^2 + 116x + 140$

$4(2x + 5)(3x + 7)$

16. $-12x^2 - 10x + 8$

$-2(2x - 1)(3x + 4)$

17. $-16x^2 - 68x - 42$

$-2(4x + 3)(2x + 7)$

18. $-48x^2 - 252x - 294$

$-6(4x + 7)(2x + 7)$

19. $3x^2 + 12x + 9$

$3(x + 1)(x + 3)$

20. $56x^2 + 42x - 35$

$7(4x + 5)(2x - 1)$

Factoring Quadratic Expressions (B)

Name: _____

Date: _____

Factor each expression.

1. $-4x^2 + 26x - 30$

11. $36x^2 + 102x - 270$

2. $9x^2 + 9x - 54$

12. $-56x^2 - 287x - 35$

3. $27x^2 + 225x - 162$

13. $32x^2 - 4x - 28$

4. $-48x^2 - 324x - 486$

14. $30x^2 + 55x - 105$

5. $49x^2 - 406x + 441$

15. $-9x^2 - 30x - 21$

6. $-15x^2 + 35x + 30$

16. $-12x^2 + 24x - 9$

7. $-49x^2 - 203x + 210$

17. $-18x^2 - 93x - 105$

8. $24x^2 - 28x - 40$

18. $-81x^2 + 234x + 27$

9. $-30x^2 + 145x + 210$

19. $30x^2 + 85x + 25$

10. $-21x^2 + 48x + 45$

20. $24x^2 + 246x + 432$

Factoring Quadratic Expressions (B) Answers

Name: _____

Date: _____

Factor each expression.

1. $-4x^2 + 26x - 30$

$-2(x - 5)(2x - 3)$

2. $9x^2 + 9x - 54$

$9(x - 2)(x + 3)$

3. $27x^2 + 225x - 162$

$9(x + 9)(3x - 2)$

4. $-48x^2 - 324x - 486$

$-6(2x + 9)(4x + 9)$

5. $49x^2 - 406x + 441$

$7(7x - 9)(x - 7)$

6. $-15x^2 + 35x + 30$

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

7. $-49x^2 - 203x + 210$

$-7(7x - 6)(x + 5)$

8. $24x^2 - 28x - 40$

$4(6x + 5)(x - 2)$

9. $-30x^2 + 145x + 210$

$-5(x - 6)(6x + 7)$

10. $-21x^2 + 48x + 45$

$-3(x - 3)(7x + 5)$

11. $36x^2 + 102x - 270$

$6(3x - 5)(2x + 9)$

12. $-56x^2 - 287x - 35$

$-7(8x + 1)(x + 5)$

13. $32x^2 - 4x - 28$

$4(x - 1)(8x + 7)$

14. $30x^2 + 55x - 105$

$5(6x - 7)(x + 3)$

15. $-9x^2 - 30x - 21$

$-3(3x + 7)(x + 1)$

16. $-12x^2 + 24x - 9$

$-3(2x - 3)(2x - 1)$

17. $-18x^2 - 93x - 105$

$-3(3x + 5)(2x + 7)$

18. $-81x^2 + 234x + 27$

$-9(x - 3)(9x + 1)$

19. $30x^2 + 85x + 25$

$5(3x + 1)(2x + 5)$

20. $24x^2 + 246x + 432$

$6(x + 8)(4x + 9)$

Factoring Quadratic Expressions (C)

Name: _____

Date: _____

Factor each expression.

1. $-45x^2 + 18x + 144$

11. $10x^2 + 25x + 10$

2. $15x^2 + 50x + 40$

12. $-18x^2 + 186x - 336$

3. $40x^2 + 192x - 40$

13. $-40x^2 - 144x + 280$

4. $48x^2 + 204x + 210$

14. $-12x^2 + 44x - 24$

5. $-24x^2 - 216x - 486$

15. $-25x^2 + 215x - 280$

6. $-27x^2 - 129x - 84$

16. $16x^2 - 40x - 200$

7. $14x^2 - 35x - 49$

17. $-8x^2 - 42x - 10$

8. $-8x^2 - 84x - 108$

18. $-56x^2 - 469x + 315$

9. $-8x^2 + 162$

19. $-24x^2 + 129x + 90$

10. $64x^2 + 80x + 24$

20. $12x^2 + 93x + 63$

Factoring Quadratic Expressions (C) Answers

Name: _____

Date: _____

Factor each expression.

1. $-45x^2 + 18x + 144$

$-9(5x + 8)(x - 2)$

2. $15x^2 + 50x + 40$

$5(x + 2)(3x + 4)$

3. $40x^2 + 192x - 40$

$8(5x - 1)(x + 5)$

4. $48x^2 + 204x + 210$

$6(2x + 5)(4x + 7)$

5. $-24x^2 - 216x - 486$

$-6(2x + 9)(2x + 9) = -6(2x + 9)^2$

6. $-27x^2 - 129x - 84$

$-3(x + 4)(9x + 7)$

7. $14x^2 - 35x - 49$

$7(2x - 7)(x + 1)$

8. $-8x^2 - 84x - 108$

$-4(2x + 3)(x + 9)$

9. $-8x^2 + 162$

$-2(2x + 9)(2x - 9)$

10. $64x^2 + 80x + 24$

$8(2x + 1)(4x + 3)$

11. $10x^2 + 25x + 10$

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

12. $-18x^2 + 186x - 336$

$-6(3x - 7)(x - 8)$

13. $-40x^2 - 144x + 280$

$-8(5x - 7)(x + 5)$

14. $-12x^2 + 44x - 24$

$-4(x - 3)(3x - 2)$

15. $-25x^2 + 215x - 280$

$-5(x - 7)(5x - 8)$

16. $16x^2 - 40x - 200$

$8(2x + 5)(x - 5)$

17. $-8x^2 - 42x - 10$

$-2(x + 5)(4x + 1)$

18. $-56x^2 - 469x + 315$

$-7(x + 9)(8x - 5)$

19. $-24x^2 + 129x + 90$

$-3(x - 6)(8x + 5)$

20. $12x^2 + 93x + 63$

$3(4x + 3)(x + 7)$

Factoring Quadratic Expressions (D)

Name: _____

Date: _____

Factor each expression.

1. $20x^2 + 184x + 36$

11. $36x^2 - 66x - 12$

2. $-10x^2 + 74x + 48$

12. $27x^2 - 252x + 441$

3. $-2x^2 + 16x + 18$

13. $12x^2 + 14x - 6$

4. $-56x^2 - 175x - 21$

14. $-14x^2 - 52x + 90$

5. $16x^2 - 52x - 90$

15. $42x^2 + 72x - 24$

6. $-18x^2 + 30x + 72$

16. $36x^2 - 66x - 432$

7. $-32x^2 + 128x + 72$

17. $4x^2 + 18x - 10$

8. $-6x^2 - 40x + 64$

18. $24x^2 - 76x + 12$

9. $63x^2 + 371x + 280$

19. $24x^2 + 69x + 42$

10. $-30x^2 - 324x - 486$

20. $54x^2 - 288x + 384$

Factoring Quadratic Expressions (D) Answers

Name: _____

Date: _____

Factor each expression.

1. $20x^2 + 184x + 36$

$4(5x + 1)(x + 9)$

2. $-10x^2 + 74x + 48$

$-2(x - 8)(5x + 3)$

3. $-2x^2 + 16x + 18$

$-2(x + 1)(x - 9)$

4. $-56x^2 - 175x - 21$

$-7(x + 3)(8x + 1)$

5. $16x^2 - 52x - 90$

$2(2x - 9)(4x + 5)$

6. $-18x^2 + 30x + 72$

$-6(3x + 4)(x - 3)$

7. $-32x^2 + 128x + 72$

$-8(2x - 9)(2x + 1)$

8. $-6x^2 - 40x + 64$

$-2(3x - 4)(x + 8)$

9. $63x^2 + 371x + 280$

$7(x + 5)(9x + 8)$

10. $-30x^2 - 324x - 486$

$-6(5x + 9)(x + 9)$

11. $36x^2 - 66x - 12$

$6(6x + 1)(x - 2)$

12. $27x^2 - 252x + 441$

$9(x - 7)(3x - 7)$

13. $12x^2 + 14x - 6$

$2(2x + 3)(3x - 1)$

14. $-14x^2 - 52x + 90$

$-2(7x - 9)(x + 5)$

15. $42x^2 + 72x - 24$

$6(x + 2)(7x - 2)$

16. $36x^2 - 66x - 432$

$6(2x - 9)(3x + 8)$

17. $4x^2 + 18x - 10$

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

18. $24x^2 - 76x + 12$

$4(6x - 1)(x - 3)$

19. $24x^2 + 69x + 42$

$3(x + 2)(8x + 7)$

20. $54x^2 - 288x + 384$

$6(3x - 8)(3x - 8) = 6(3x - 8)^2$

Factoring Quadratic Expressions (E)

Name: _____

Date: _____

Factor each expression.

1. $-18x^2 - 6x + 40$

11. $25x^2 + 230x + 240$

2. $-24x^2 + 138x - 135$

12. $-27x^2 + 183x + 42$

3. $42x^2 + 301x + 49$

13. $-36x^2 - 78x - 12$

4. $-18x^2 + 15x + 63$

14. $36x^2 + 248x - 28$

5. $72x^2 + 63x - 162$

15. $-24x^2 - 248x - 288$

6. $-8x^2 + 4x + 4$

16. $-32x^2 - 192x - 216$

7. $-16x^2 + 102x + 70$

17. $-24x^2 - 30x + 75$

8. $21x^2 + 70x - 56$

18. $30x^2 + 168x + 192$

9. $-24x^2 + 164x + 28$

19. $-21x^2 - 91x - 98$

10. $45x^2 + 85x - 10$

20. $-36x^2 + 120x - 64$

Factoring Quadratic Expressions (E) Answers

Name: _____

Date: _____

Factor each expression.

1. $-18x^2 - 6x + 40$

$-2(3x - 4)(3x + 5)$

2. $-24x^2 + 138x - 135$

$-3(4x - 5)(2x - 9)$

3. $42x^2 + 301x + 49$

$7(x + 7)(6x + 1)$

4. $-18x^2 + 15x + 63$

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

5. $72x^2 + 63x - 162$

$9(8x - 9)(x + 2)$

6. $-8x^2 + 4x + 4$

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

7. $-16x^2 + 102x + 70$

$-2(8x + 5)(x - 7)$

8. $21x^2 + 70x - 56$

$7(3x - 2)(x + 4)$

9. $-24x^2 + 164x + 28$

$-4(x - 7)(6x + 1)$

10. $45x^2 + 85x - 10$

$5(x + 2)(9x - 1)$

11. $25x^2 + 230x + 240$

$5(x + 8)(5x + 6)$

12. $-27x^2 + 183x + 42$

$-3(9x + 2)(x - 7)$

13. $-36x^2 - 78x - 12$

$-6(6x + 1)(x + 2)$

14. $36x^2 + 248x - 28$

$4(9x - 1)(x + 7)$

15. $-24x^2 - 248x - 288$

$-8(x + 9)(3x + 4)$

16. $-32x^2 - 192x - 216$

$-8(2x + 9)(2x + 3)$

17. $-24x^2 - 30x + 75$

$-3(2x + 5)(4x - 5)$

18. $30x^2 + 168x + 192$

$6(x + 4)(5x + 8)$

19. $-21x^2 - 91x - 98$

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

20. $-36x^2 + 120x - 64$

$-4(3x - 2)(3x - 8)$

Factoring Quadratic Expressions (F)

Name: _____

Date: _____

Factor each expression.

1. $-42x^2 + 161x + 126$

11. $-54x^2 - 108x + 96$

2. $-48x^2 + 328x + 448$

12. $81x^2 + 558x - 63$

3. $-18x^2 - 30x + 48$

13. $-35x^2 - 63x - 28$

4. $54x^2 - 96x - 24$

14. $-24x^2 - 52x + 20$

5. $-12x^2 + 34x + 90$

15. $-18x^2 - 33x + 30$

6. $24x^2 + 66x + 27$

16. $-72x^2 + 224x - 24$

7. $2x^2 - 22x + 48$

17. $40x^2 - 150x - 135$

8. $-40x^2 + 325x - 40$

18. $-9x^2 - 60x + 189$

9. $-42x^2 + 91x - 49$

19. $45x^2 + 125x + 70$

10. $-6x^2 - 4x + 2$

20. $9x^2 - 441$

Factoring Quadratic Expressions (F) Answers

Name: _____

Date: _____

Factor each expression.

1. $-42x^2 + 161x + 126$

$-7(3x + 2)(2x - 9)$

2. $-48x^2 + 328x + 448$

$-8(6x + 7)(x - 8)$

3. $-18x^2 - 30x + 48$

$-6(x - 1)(3x + 8)$

4. $54x^2 - 96x - 24$

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

5. $-12x^2 + 34x + 90$

$-2(2x - 9)(3x + 5)$

6. $24x^2 + 66x + 27$

$3(2x + 1)(4x + 9)$

7. $2x^2 - 22x + 48$

$2(x - 3)(x - 8)$

8. $-40x^2 + 325x - 40$

$-5(8x - 1)(x - 8)$

9. $-42x^2 + 91x - 49$

$-7(x - 1)(6x - 7)$

10. $-6x^2 - 4x + 2$

$-2(x + 1)(3x - 1)$

11. $-54x^2 - 108x + 96$

$-6(3x + 8)(3x - 2)$

12. $81x^2 + 558x - 63$

$9(x + 7)(9x - 1)$

13. $-35x^2 - 63x - 28$

$-7(x + 1)(5x + 4)$

14. $-24x^2 - 52x + 20$

$-4(2x + 5)(3x - 1)$

15. $-18x^2 - 33x + 30$

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

16. $-72x^2 + 224x - 24$

$-8(9x - 1)(x - 3)$

17. $40x^2 - 150x - 135$

$5(2x - 9)(4x + 3)$

18. $-9x^2 - 60x + 189$

$-3(x + 9)(3x - 7)$

19. $45x^2 + 125x + 70$

$5(x + 2)(9x + 7)$

20. $9x^2 - 441$

$9(x - 7)(x + 7)$

Factoring Quadratic Expressions (G)

Name: _____

Date: _____

Factor each expression.

1. $24x^2 - 148x - 140$

11. $32x^2 - 180x + 100$

2. $36x^2 - 78x + 30$

12. $36x^2 - 30x + 6$

3. $-16x^2 - 60x + 54$

13. $14x^2 - 110x - 144$

4. $-30x^2 - 246x - 48$

14. $5x^2 - 55x + 90$

5. $48x^2 - 6x - 42$

15. $18x^2 - 3x - 6$

6. $-8x^2 + 22x - 12$

16. $-16x^2 + 152x - 72$

7. $24x^2 - 8x - 16$

17. $10x^2 + 95x + 120$

8. $18x^2 + 21x - 15$

18. $-18x^2 - 27x + 486$

9. $24x^2 + 30x + 6$

19. $-16x^2 + 86x + 60$

10. $-48x^2 - 88x - 32$

20. $20x^2 - 144x + 144$

Factoring Quadratic Expressions (G) Answers

Name: _____

Date: _____

Factor each expression.

1. $24x^2 - 148x - 140$

$4(6x + 5)(x - 7)$

2. $36x^2 - 78x + 30$

$6(2x - 1)(3x - 5)$

3. $-16x^2 - 60x + 54$

$-2(2x + 9)(4x - 3)$

4. $-30x^2 - 246x - 48$

$-6(5x + 1)(x + 8)$

5. $48x^2 - 6x - 42$

$6(8x + 7)(x - 1)$

6. $-8x^2 + 22x - 12$

$-2(x - 2)(4x - 3)$

7. $24x^2 - 8x - 16$

$8(x - 1)(3x + 2)$

8. $18x^2 + 21x - 15$

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

9. $24x^2 + 30x + 6$

$6(x + 1)(4x + 1)$

10. $-48x^2 - 88x - 32$

$-8(3x + 4)(2x + 1)$

11. $32x^2 - 180x + 100$

$4(8x - 5)(x - 5)$

12. $36x^2 - 30x + 6$

$6(3x - 1)(2x - 1)$

13. $14x^2 - 110x - 144$

$2(x - 9)(7x + 8)$

14. $5x^2 - 55x + 90$

$5(x - 9)(x - 2)$

15. $18x^2 - 3x - 6$

$3(2x + 1)(3x - 2)$

16. $-16x^2 + 152x - 72$

$-8(x - 9)(2x - 1)$

17. $10x^2 + 95x + 120$

$5(2x + 3)(x + 8)$

18. $-18x^2 - 27x + 486$

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

19. $-16x^2 + 86x + 60$

$-2(8x + 5)(x - 6)$

20. $20x^2 - 144x + 144$

$4(5x - 6)(x - 6)$

Factoring Quadratic Expressions (H)

Name: _____

Date: _____

Factor each expression.

1. $-24x^2 - 100x - 16$

11. $-64x^2 - 336x - 216$

2. $-24x^2 - 150x - 150$

12. $24x^2 + 66x - 18$

3. $-6x^2 - 69x - 135$

13. $48x^2 - 152x + 24$

4. $-36x^2 + 144x - 63$

14. $72x^2 - 568x - 64$

5. $12x^2 + 90x + 42$

15. $48x^2 + 296x + 360$

6. $24x^2 + 116x + 36$

16. $30x^2 + 228x + 288$

7. $35x^2 - 290x + 80$

17. $24x^2 - 78x + 45$

8. $18x^2 + 82x - 40$

18. $27x^2 + 81x + 60$

9. $-2x^2 + 30x - 108$

19. $36x^2 + 72x - 189$

10. $18x^2 + 3x - 45$

20. $14x^2 + 116x + 126$

Factoring Quadratic Expressions (H) Answers

Name: _____

Date: _____

Factor each expression.

1. $-24x^2 - 100x - 16$

$-4(x + 4)(6x + 1)$

2. $-24x^2 - 150x - 150$

$-6(4x + 5)(x + 5)$

3. $-6x^2 - 69x - 135$

$-3(2x + 5)(x + 9)$

4. $-36x^2 + 144x - 63$

$-9(2x - 1)(2x - 7)$

5. $12x^2 + 90x + 42$

$6(x + 7)(2x + 1)$

6. $24x^2 + 116x + 36$

$4(3x + 1)(2x + 9)$

7. $35x^2 - 290x + 80$

$5(7x - 2)(x - 8)$

8. $18x^2 + 82x - 40$

$2(9x - 4)(x + 5)$

9. $-2x^2 + 30x - 108$

$-2(x - 9)(x - 6)$

10. $18x^2 + 3x - 45$

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

11. $-64x^2 - 336x - 216$

$-8(4x + 3)(2x + 9)$

12. $24x^2 + 66x - 18$

$6(4x - 1)(x + 3)$

13. $48x^2 - 152x + 24$

$8(6x - 1)(x - 3)$

14. $72x^2 - 568x - 64$

$8(9x + 1)(x - 8)$

15. $48x^2 + 296x + 360$

$8(3x + 5)(2x + 9)$

16. $30x^2 + 228x + 288$

$6(5x + 8)(x + 6)$

17. $24x^2 - 78x + 45$

$3(2x - 5)(4x - 3)$

18. $27x^2 + 81x + 60$

$3(3x + 5)(3x + 4)$

19. $36x^2 + 72x - 189$

$9(2x + 7)(2x - 3)$

20. $14x^2 + 116x + 126$

$2(7x + 9)(x + 7)$

Factoring Quadratic Expressions (I)

Name: _____

Date: _____

Factor each expression.

1. $12x^2 + 40x - 32$

11. $48x^2 - 102x - 126$

2. $56x^2 + 49x - 126$

12. $6x^2 + 27x - 15$

3. $-8x^2 + 24x - 16$

13. $-20x^2 - 168x - 196$

4. $36x^2 + 72x + 27$

14. $-32x^2 - 40x + 28$

5. $18x^2 - 104x - 24$

15. $16x^2 - 156x + 224$

6. $81x^2 + 81x + 18$

16. $-40x^2 - 384x - 512$

7. $56x^2 - 400x + 384$

17. $-64x^2 - 144x - 56$

8. $21x^2 - 70x - 175$

18. $42x^2 + 402x + 216$

9. $6x^2 - 6x - 120$

19. $-64x^2 - 232x - 120$

10. $-15x^2 + 5x + 50$

20. $-48x^2 - 198x - 162$

Factoring Quadratic Expressions (I) Answers

Name: _____

Date: _____

Factor each expression.

1. $12x^2 + 40x - 32$

$4(x + 4)(3x - 2)$

2. $56x^2 + 49x - 126$

$7(x + 2)(8x - 9)$

3. $-8x^2 + 24x - 16$

$-8(x - 1)(x - 2)$

4. $36x^2 + 72x + 27$

$9(2x + 1)(2x + 3)$

5. $18x^2 - 104x - 24$

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

6. $81x^2 + 81x + 18$

$9(3x + 1)(3x + 2)$

7. $56x^2 - 400x + 384$

$8(x - 6)(7x - 8)$

8. $21x^2 - 70x - 175$

$7(x - 5)(3x + 5)$

9. $6x^2 - 6x - 120$

$6(x - 5)(x + 4)$

10. $-15x^2 + 5x + 50$

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

11. $48x^2 - 102x - 126$

$6(x - 3)(8x + 7)$

12. $6x^2 + 27x - 15$

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

13. $-20x^2 - 168x - 196$

$-4(x + 7)(5x + 7)$

14. $-32x^2 - 40x + 28$

$-4(4x + 7)(2x - 1)$

15. $16x^2 - 156x + 224$

$4(4x - 7)(x - 8)$

16. $-40x^2 - 384x - 512$

$-8(x + 8)(5x + 8)$

17. $-64x^2 - 144x - 56$

$-8(2x + 1)(4x + 7)$

18. $42x^2 + 402x + 216$

$6(x + 9)(7x + 4)$

19. $-64x^2 - 232x - 120$

$-8(8x + 5)(x + 3)$

20. $-48x^2 - 198x - 162$

$-6(8x + 9)(x + 3)$

Factoring Quadratic Expressions (J)

Name: _____

Date: _____

Factor each expression.

1. $-35x^2 - 10x + 25$

11. $-35x^2 + 238x + 336$

2. $10x^2 + 65x + 105$

12. $21x^2 - 57x + 30$

3. $14x^2 - 77x + 35$

13. $63x^2 + 273x + 280$

4. $56x^2 + 539x + 315$

14. $-14x^2 + 8x + 6$

5. $-72x^2 + 18x + 27$

15. $-6x^2 - 2x + 48$

6. $-32x^2 + 328x - 360$

16. $-8x^2 - 8x + 448$

7. $12x^2 - 69x + 84$

17. $42x^2 + 240x - 72$

8. $-72x^2 + 261x + 108$

18. $-6x^2 + 70x - 144$

9. $-54x^2 + 99x + 90$

19. $-6x^2 + 8x + 14$

10. $-10x^2 + 14x + 12$

20. $10x^2 + 5x - 105$

Factoring Quadratic Expressions (J) Answers

Name: _____

Date: _____

Factor each expression.

1. $-35x^2 - 10x + 25$

$-5(x + 1)(7x - 5)$

2. $10x^2 + 65x + 105$

$5(x + 3)(2x + 7)$

3. $14x^2 - 77x + 35$

$7(x - 5)(2x - 1)$

4. $56x^2 + 539x + 315$

$7(x + 9)(8x + 5)$

5. $-72x^2 + 18x + 27$

$-9(4x - 3)(2x + 1)$

6. $-32x^2 + 328x - 360$

$-8(4x - 5)(x - 9)$

7. $12x^2 - 69x + 84$

$3(x - 4)(4x - 7)$

8. $-72x^2 + 261x + 108$

$-9(8x + 3)(x - 4)$

9. $-54x^2 + 99x + 90$

$-9(2x - 5)(3x + 2)$

10. $-10x^2 + 14x + 12$

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

11. $-35x^2 + 238x + 336$

$-7(x - 8)(5x + 6)$

12. $21x^2 - 57x + 30$

$3(x - 2)(7x - 5)$

13. $63x^2 + 273x + 280$

$7(3x + 5)(3x + 8)$

14. $-14x^2 + 8x + 6$

$-2(7x + 3)(x - 1)$

15. $-6x^2 - 2x + 48$

$-2(x + 3)(3x - 8)$

16. $-8x^2 - 8x + 448$

$-8(x - 7)(x + 8)$

17. $42x^2 + 240x - 72$

$6(7x - 2)(x + 6)$

18. $-6x^2 + 70x - 144$

$-2(x - 9)(3x - 8)$

19. $-6x^2 + 8x + 14$

$-2(3x - 7)(x + 1)$

20. $10x^2 + 5x - 105$

$5(x - 3)(2x + 7)$