

Factoring Quadratic Expressions (A)

Name: _____

Date: _____

Factor each expression.

1. $4x^2 + 18x - 112$

11. $-8x^2 - 48x - 70$

2. $12x^2 - 44x - 80$

12. $12x^2 + 44x - 80$

3. $6x^2 + 21x - 27$

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

4. $12x^2 + 52x - 224$

14. $20x^2 + 215x + 315$

5. $10x^2 - 25x - 125$

15. $-4x^2 - 36x - 56$

6. $-5x^2 - 60x - 135$

16. $-16x^2 + 12x + 28$

7. $8x^2 - 6x - 54$

17. $15x^2 - 110x + 175$

8. $-8x^2 + 26x - 18$

18. $12x^2 - 40x - 32$

9. $-16x^2 - 116x - 180$

19. $-20x^2 - 155x + 225$

10. $-2x^2 - 34x - 144$

20. $-12x^2 - 32x - 16$

Factoring Quadratic Expressions (A) Answers

Name: _____

Date: _____

Factor each expression.

1. $4x^2 + 18x - 112$

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

2. $12x^2 - 44x - 80$

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

3. $6x^2 + 21x - 27$

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

4. $12x^2 + 52x - 224$

$4(3x - 8)(x + 7)$

5. $10x^2 - 25x - 125$

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

6. $-5x^2 - 60x - 135$

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

7. $8x^2 - 6x - 54$

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

8. $-8x^2 + 26x - 18$

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

9. $-16x^2 - 116x - 180$

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

10. $-2x^2 - 34x - 144$

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

11. $-8x^2 - 48x - 70$

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

12. $12x^2 + 44x - 80$

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

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

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

14. $20x^2 + 215x + 315$

$5(4x + 7)(x + 9)$

15. $-4x^2 - 36x - 56$

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

16. $-16x^2 + 12x + 28$

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

17. $15x^2 - 110x + 175$

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

18. $12x^2 - 40x - 32$

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

19. $-20x^2 - 155x + 225$

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

20. $-12x^2 - 32x - 16$

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

Factoring Quadratic Expressions (B)

Name: _____

Date: _____

Factor each expression.

1. $-4x^2 - 30x - 14$

11. $4x^2 + 22x - 42$

2. $-16x^2 - 116x - 180$

12. $4x^2 + 16x - 84$

3. $-4x^2 + 14x + 18$

13. $-8x^2 + 66x - 16$

4. $-9x^2 - 42x - 45$

14. $8x^2 + 12x - 36$

5. $8x^2 - 68x + 144$

15. $-9x^2 - 75x + 54$

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

16. $6x^2 - 26x + 28$

7. $3x^2 - 27$

17. $-12x^2 + 12x + 45$

8. $9x^2 - 93x + 168$

18. $-5x^2 + 10x + 240$

9. $6x^2 - 45x + 75$

19. $-6x^2 + 45x - 84$

10. $10x^2 - 35x - 150$

20. $-9x^2 - 51x - 60$

Factoring Quadratic Expressions (B) Answers

Name: _____

Date: _____

Factor each expression.

1. $-4x^2 - 30x - 14$

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

2. $-16x^2 - 116x - 180$

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

3. $-4x^2 + 14x + 18$

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

4. $-9x^2 - 42x - 45$

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

5. $8x^2 - 68x + 144$

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

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

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

7. $3x^2 - 27$

$3(x + 3)(x - 3)$

8. $9x^2 - 93x + 168$

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

9. $6x^2 - 45x + 75$

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

10. $10x^2 - 35x - 150$

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

11. $4x^2 + 22x - 42$

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

12. $4x^2 + 16x - 84$

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

13. $-8x^2 + 66x - 16$

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

14. $8x^2 + 12x - 36$

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

15. $-9x^2 - 75x + 54$

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

16. $6x^2 - 26x + 28$

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

17. $-12x^2 + 12x + 45$

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

18. $-5x^2 + 10x + 240$

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

19. $-6x^2 + 45x - 84$

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

20. $-9x^2 - 51x - 60$

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

Factoring Quadratic Expressions (C)

Name: _____

Date: _____

Factor each expression.

1. $9x^2 + 24x - 9$

11. $-20x^2 + 20x + 15$

2. $-10x^2 + 135x - 405$

12. $-12x^2 - 27x + 84$

3. $-15x^2 - 85x + 140$

13. $-8x^2 - 40x - 42$

4. $-5x^2 + 60x - 175$

14. $15x^2 + 50x + 35$

5. $-15x^2 - 20x + 160$

15. $-9x^2 + 105x - 216$

6. $-12x^2 + 99x - 105$

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

7. $10x^2 + 65x + 90$

17. $9x^2 + 48x + 63$

8. $3x^2 - 15x - 42$

18. $12x^2 - 24x - 15$

9. $8x^2 + 68x + 84$

19. $20x^2 - 75x + 70$

10. $3x^2 + 54x + 243$

20. $4x^2 + 10x - 36$

Factoring Quadratic Expressions (C) Answers

Name: _____

Date: _____

Factor each expression.

1. $9x^2 + 24x - 9$

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

2. $-10x^2 + 135x - 405$

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

3. $-15x^2 - 85x + 140$

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

4. $-5x^2 + 60x - 175$

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

5. $-15x^2 - 20x + 160$

$-5(x + 4)(3x - 8)$

6. $-12x^2 + 99x - 105$

$-3(x - 7)(4x - 5)$

7. $10x^2 + 65x + 90$

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

8. $3x^2 - 15x - 42$

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

9. $8x^2 + 68x + 84$

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

10. $3x^2 + 54x + 243$

$3(x + 9)(x + 9) = 3(x + 9)^2$

11. $-20x^2 + 20x + 15$

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

12. $-12x^2 - 27x + 84$

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

13. $-8x^2 - 40x - 42$

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

14. $15x^2 + 50x + 35$

$5(3x + 7)(x + 1)$

15. $-9x^2 + 105x - 216$

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

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

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

17. $9x^2 + 48x + 63$

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

18. $12x^2 - 24x - 15$

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

19. $20x^2 - 75x + 70$

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

20. $4x^2 + 10x - 36$

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

Factoring Quadratic Expressions (D)

Name: _____

Date: _____

Factor each expression.

1. $-2x^2 + 2x + 60$

11. $-4x^2 + 16x + 84$

2. $-4x^2 - 14x + 18$

12. $-20x^2 - 120x - 135$

3. $20x^2 - 120x + 135$

13. $8x^2 + 40x + 42$

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

14. $20x^2 + 20x - 315$

5. $-6x^2 + 14x + 12$

15. $-3x^2 - 6x + 9$

6. $-20x^2 - 100x - 105$

16. $-6x^2 - 51x - 108$

7. $-2x^2 - 2x + 144$

17. $16x^2 + 12x - 40$

8. $-8x^2 - 54x + 162$

18. $2x^2 - 12x - 54$

9. $-16x^2 + 4x + 72$

19. $-20x^2 + 15x + 50$

10. $8x^2 + 92x + 252$

20. $8x^2 - 162$

Factoring Quadratic Expressions (D) Answers

Name: _____

Date: _____

Factor each expression.

1. $-2x^2 + 2x + 60$

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

2. $-4x^2 - 14x + 18$

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

3. $20x^2 - 120x + 135$

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

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

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

5. $-6x^2 + 14x + 12$

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

6. $-20x^2 - 100x - 105$

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

7. $-2x^2 - 2x + 144$

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

8. $-8x^2 - 54x + 162$

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

9. $-16x^2 + 4x + 72$

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

10. $8x^2 + 92x + 252$

$4(2x + 9)(x + 7)$

11. $-4x^2 + 16x + 84$

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

12. $-20x^2 - 120x - 135$

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

13. $8x^2 + 40x + 42$

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

14. $20x^2 + 20x - 315$

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

15. $-3x^2 - 6x + 9$

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

16. $-6x^2 - 51x - 108$

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

17. $16x^2 + 12x - 40$

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

18. $2x^2 - 12x - 54$

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

19. $-20x^2 + 15x + 50$

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

20. $8x^2 - 162$

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

Factoring Quadratic Expressions (E)

Name: _____

Date: _____

Factor each expression.

1. $4x^2 + 18x + 20$

11. $20x^2 + 80x - 45$

2. $-20x^2 - 55x - 30$

12. $10x^2 - 5x - 5$

3. $-12x^2 - 68x - 80$

13. $-16x^2 - 116x - 120$

4. $20x^2 - 85x + 20$

14. $16x^2 + 84x - 196$

5. $16x^2 - 32x + 12$

15. $-4x^2 - 4x + 24$

6. $-16x^2 - 180x - 324$

16. $10x^2 + 95x + 120$

7. $8x^2 + 18x + 10$

17. $8x^2 - 62x - 16$

8. $-15x^2 + 50x + 40$

18. $-20x^2 + 60x + 135$

9. $6x^2 - 44x + 48$

19. $-8x^2 + 50x - 72$

10. $-5x^2 + 45x - 40$

20. $20x^2 - 125$

Factoring Quadratic Expressions (E) Answers

Name: _____

Date: _____

Factor each expression.

1. $4x^2 + 18x + 20$

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

2. $-20x^2 - 55x - 30$

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

3. $-12x^2 - 68x - 80$

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

4. $20x^2 - 85x + 20$

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

5. $16x^2 - 32x + 12$

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

6. $-16x^2 - 180x - 324$

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

7. $8x^2 + 18x + 10$

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

8. $-15x^2 + 50x + 40$

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

9. $6x^2 - 44x + 48$

$2(x - 6)(3x - 4)$

10. $-5x^2 + 45x - 40$

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

11. $20x^2 + 80x - 45$

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

12. $10x^2 - 5x - 5$

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

13. $-16x^2 - 116x - 120$

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

14. $16x^2 + 84x - 196$

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

15. $-4x^2 - 4x + 24$

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

16. $10x^2 + 95x + 120$

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

17. $8x^2 - 62x - 16$

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

18. $-20x^2 + 60x + 135$

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

19. $-8x^2 + 50x - 72$

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

20. $20x^2 - 125$

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

Factoring Quadratic Expressions (F)

Name: _____

Date: _____

Factor each expression.

1. $-20x^2 - 115x + 175$

11. $12x^2 + 15x - 18$

2. $20x^2 + 160x + 315$

12. $-6x^2 + 34x - 48$

3. $-12x^2 - 16x + 16$

13. $-8x^2 + 44x + 84$

4. $-16x^2 - 140x - 96$

14. $8x^2 - 60x + 108$

5. $-4x^2 + 26x - 40$

15. $16x^2 + 60x + 36$

6. $20x^2 - 135x - 405$

16. $20x^2 + 20x + 5$

7. $-12x^2 + 88x + 180$

17. $-16x^2 + 4x + 72$

8. $12x^2 + 52x + 16$

18. $-2x^2 + 14x + 16$

9. $-5x^2 + 50x - 80$

19. $12x^2 - 136x + 252$

10. $8x^2 - 60x - 32$

20. $6x^2 + 3x - 108$

Factoring Quadratic Expressions (F) Answers

Name: _____

Date: _____

Factor each expression.

1. $-20x^2 - 115x + 175$

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

2. $20x^2 + 160x + 315$

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

3. $-12x^2 - 16x + 16$

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

4. $-16x^2 - 140x - 96$

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

5. $-4x^2 + 26x - 40$

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

6. $20x^2 - 135x - 405$

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

7. $-12x^2 + 88x + 180$

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

8. $12x^2 + 52x + 16$

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

9. $-5x^2 + 50x - 80$

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

10. $8x^2 - 60x - 32$

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

11. $12x^2 + 15x - 18$

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

12. $-6x^2 + 34x - 48$

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

13. $-8x^2 + 44x + 84$

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

14. $8x^2 - 60x + 108$

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

15. $16x^2 + 60x + 36$

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

16. $20x^2 + 20x + 5$

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

17. $-16x^2 + 4x + 72$

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

18. $-2x^2 + 14x + 16$

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

19. $12x^2 - 136x + 252$

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

20. $6x^2 + 3x - 108$

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

Factoring Quadratic Expressions (G)

Name: _____

Date: _____

Factor each expression.

1. $8x^2 + 16x - 42$

11. $-8x^2 - 24x + 54$

2. $-9x^2 - 6x + 48$

12. $-12x^2 - 72x - 81$

3. $-12x^2 + 56x - 60$

13. $-12x^2 + 44x + 80$

4. $-8x^2 + 20x + 48$

14. $12x^2 - 69x + 84$

5. $10x^2 - 35x + 15$

15. $6x^2 - 10x + 4$

6. $4x^2 - 22x + 24$

16. $12x^2 - 44x + 24$

7. $-15x^2 - 130x + 45$

17. $6x^2 + 34x + 20$

8. $16x^2 - 172x + 252$

18. $-8x^2 + 58x - 14$

9. $6x^2 + 57x + 27$

19. $8x^2 - 2x - 36$

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

20. $4x^2 + 10x + 4$

Factoring Quadratic Expressions (G) Answers

Name: _____

Date: _____

Factor each expression.

1. $8x^2 + 16x - 42$

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

2. $-9x^2 - 6x + 48$

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

3. $-12x^2 + 56x - 60$

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

4. $-8x^2 + 20x + 48$

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

5. $10x^2 - 35x + 15$

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

6. $4x^2 - 22x + 24$

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

7. $-15x^2 - 130x + 45$

$-5(x + 9)(3x - 1)$

8. $16x^2 - 172x + 252$

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

9. $6x^2 + 57x + 27$

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

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

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

11. $-8x^2 - 24x + 54$

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

12. $-12x^2 - 72x - 81$

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

13. $-12x^2 + 44x + 80$

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

14. $12x^2 - 69x + 84$

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

15. $6x^2 - 10x + 4$

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

16. $12x^2 - 44x + 24$

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

17. $6x^2 + 34x + 20$

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

18. $-8x^2 + 58x - 14$

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

19. $8x^2 - 2x - 36$

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

20. $4x^2 + 10x + 4$

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

Factoring Quadratic Expressions (H)

Name: _____

Date: _____

Factor each expression.

1. $-6x^2 - 63x - 120$

11. $16x^2 - 108x - 160$

2. $-12x^2 + 129x - 189$

12. $-16x^2 - 116x + 96$

3. $12x^2 - 48x + 21$

13. $-20x^2 - 15x + 35$

4. $15x^2 + 25x - 10$

14. $-5x^2 - 40x + 45$

5. $-8x^2 - 4x + 4$

15. $-2x^2 - 14x - 24$

6. $-15x^2 - 55x - 30$

16. $16x^2 + 100x + 144$

7. $-4x^2 + 10x + 36$

17. $-12x^2 - 76x - 24$

8. $-8x^2 + 38x - 42$

18. $20x^2 - 35x - 75$

9. $12x^2 - 80x + 128$

19. $6x^2 - 21x - 45$

10. $-16x^2 + 28x + 8$

20. $-4x^2 + 18x + 162$

Factoring Quadratic Expressions (H) Answers

Name: _____

Date: _____

Factor each expression.

1. $-6x^2 - 63x - 120$

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

2. $-12x^2 + 129x - 189$

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

3. $12x^2 - 48x + 21$

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

4. $15x^2 + 25x - 10$

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

5. $-8x^2 - 4x + 4$

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

6. $-15x^2 - 55x - 30$

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

7. $-4x^2 + 10x + 36$

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

8. $-8x^2 + 38x - 42$

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

9. $12x^2 - 80x + 128$

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

10. $-16x^2 + 28x + 8$

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

11. $16x^2 - 108x - 160$

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

12. $-16x^2 - 116x + 96$

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

13. $-20x^2 - 15x + 35$

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

14. $-5x^2 - 40x + 45$

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

15. $-2x^2 - 14x - 24$

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

16. $16x^2 + 100x + 144$

$4(4x + 9)(x + 4)$

17. $-12x^2 - 76x - 24$

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

18. $20x^2 - 35x - 75$

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

19. $6x^2 - 21x - 45$

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

20. $-4x^2 + 18x + 162$

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

Factoring Quadratic Expressions (I)

Name: _____

Date: _____

Factor each expression.

1. $-8x^2 + 66x - 70$

11. $-9x^2 - 6x + 48$

2. $-20x^2 + 5$

12. $8x^2 + 44x - 84$

3. $15x^2 - 115x - 180$

13. $-16x^2 - 100x - 24$

4. $-16x^2 - 32x + 180$

14. $15x^2 - 145x + 200$

5. $-10x^2 - 55x - 25$

15. $16x^2 - 112x + 180$

6. $-9x^2 + 69x + 24$

16. $-15x^2 + 40x + 175$

7. $-16x^2 + 68x - 16$

17. $8x^2 + 20x - 12$

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

18. $-9x^2 - 42x + 147$

9. $-12x^2 - 81x + 120$

19. $-6x^2 - 32x - 32$

10. $-16x^2 + 96x - 140$

20. $-6x^2 + 3x + 63$

Factoring Quadratic Expressions (I) Answers

Name: _____

Date: _____

Factor each expression.

1. $-8x^2 + 66x - 70$

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

2. $-20x^2 + 5$

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

3. $15x^2 - 115x - 180$

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

4. $-16x^2 - 32x + 180$

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

5. $-10x^2 - 55x - 25$

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

6. $-9x^2 + 69x + 24$

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

7. $-16x^2 + 68x - 16$

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

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

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

9. $-12x^2 - 81x + 120$

$-3(4x - 5)(x + 8)$

10. $-16x^2 + 96x - 140$

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

11. $-9x^2 - 6x + 48$

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

12. $8x^2 + 44x - 84$

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

13. $-16x^2 - 100x - 24$

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

14. $15x^2 - 145x + 200$

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

15. $16x^2 - 112x + 180$

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

16. $-15x^2 + 40x + 175$

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

17. $8x^2 + 20x - 12$

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

18. $-9x^2 - 42x + 147$

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

19. $-6x^2 - 32x - 32$

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

20. $-6x^2 + 3x + 63$

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

Factoring Quadratic Expressions (J)

Name: _____

Date: _____

Factor each expression.

1. $5x^2 + 25x - 70$

11. $15x^2 - 110x + 120$

2. $-10x^2 - 125x - 315$

12. $-16x^2 - 116x + 252$

3. $-15x^2 + 70x - 75$

13. $-15x^2 + 100x - 160$

4. $8x^2 - 58x + 90$

14. $-8x^2 - 14x + 30$

5. $8x^2 - 16x - 42$

15. $-6x^2 - 62x - 112$

6. $8x^2 - 92x + 252$

16. $8x^2 + 48x + 70$

7. $12x^2 - 92x - 144$

17. $-5x^2 - 30x - 25$

8. $15x^2 + 115x + 70$

18. $-12x^2 + 3$

9. $2x^2 + 10x - 12$

19. $-3x^2 + 15x + 42$

10. $-6x^2 - 51x + 27$

20. $2x^2 - 28x + 90$

Factoring Quadratic Expressions (J) Answers

Name: _____

Date: _____

Factor each expression.

1. $5x^2 + 25x - 70$

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

2. $-10x^2 - 125x - 315$

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

3. $-15x^2 + 70x - 75$

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

4. $8x^2 - 58x + 90$

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

5. $8x^2 - 16x - 42$

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

6. $8x^2 - 92x + 252$

$4(2x - 9)(x - 7)$

7. $12x^2 - 92x - 144$

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

8. $15x^2 + 115x + 70$

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

9. $2x^2 + 10x - 12$

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

10. $-6x^2 - 51x + 27$

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

11. $15x^2 - 110x + 120$

$5(3x - 4)(x - 6)$

12. $-16x^2 - 116x + 252$

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

13. $-15x^2 + 100x - 160$

$-5(x - 4)(3x - 8)$

14. $-8x^2 - 14x + 30$

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

15. $-6x^2 - 62x - 112$

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

16. $8x^2 + 48x + 70$

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

17. $-5x^2 - 30x - 25$

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

18. $-12x^2 + 3$

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

19. $-3x^2 + 15x + 42$

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

20. $2x^2 - 28x + 90$

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