

Factoring Quadratic Expressions (J)

Name: _____

Date: _____

Factor each expression.

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

11. $4x^2 + 24x - 64$

2. $-2x^2 - 26x - 80$

12. $2x^2 - 98$

3. $4x^2 + 16x + 16$

13. $3x^2 - 36x + 108$

4. $3x^2 + 9x - 84$

14. $-4x^2 - 8x + 12$

5. $-5x^2 + 320$

15. $-4x^2 - 56x - 192$

6. $-2x^2 + 24x - 64$

16. $-5x^2 - 30x - 40$

7. $2x^2 - 8$

17. $2x^2 + 4x - 126$

8. $3x^2 + 15x - 72$

18. $5x^2 + 45x + 100$

9. $4x^2 + 28x + 40$

19. $4x^2 + 44x + 96$

10. $-3x^2 - 24x - 48$

20. $5x^2 + 55x + 140$

Factoring Quadratic Expressions (J) Answers

Name: _____

Date: _____

Factor each expression.

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

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

2. $-2x^2 - 26x - 80$

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

3. $4x^2 + 16x + 16$

$4(x + 2)(x + 2) = 4(x + 2)^2$

4. $3x^2 + 9x - 84$

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

5. $-5x^2 + 320$

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

6. $-2x^2 + 24x - 64$

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

7. $2x^2 - 8$

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

8. $3x^2 + 15x - 72$

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

9. $4x^2 + 28x + 40$

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

10. $-3x^2 - 24x - 48$

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

11. $4x^2 + 24x - 64$

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

12. $2x^2 - 98$

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

13. $3x^2 - 36x + 108$

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

14. $-4x^2 - 8x + 12$

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

15. $-4x^2 - 56x - 192$

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

16. $-5x^2 - 30x - 40$

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

17. $2x^2 + 4x - 126$

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

18. $5x^2 + 45x + 100$

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

19. $4x^2 + 44x + 96$

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

20. $5x^2 + 55x + 140$

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