

# Factoring Quadratic Expressions (J)

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Factor each expression.

1.  $-15x^2 - 8x - 1$

11.  $-5x^2 - 28x - 32$

2.  $10x^2 - 23x - 5$

12.  $-6x^2 - 17x + 28$

3.  $-45x^2 - 76x + 9$

13.  $-54x^2 + 33x + 10$

4.  $6x^2 + 11x + 4$

14.  $9x^2 + 42x + 49$

5.  $12x^2 + 20x + 7$

15.  $6x^2 - 61x + 63$

6.  $-45x^2 + 22x + 3$

16.  $-4x^2 + 13x + 12$

7.  $24x^2 + 43x + 5$

17.  $-81x^2 + 9x + 56$

8.  $-7x^2 + 20x + 32$

18.  $-7x^2 + 17x + 12$

9.  $-3x^2 + 17x - 24$

19.  $-21x^2 + 76x - 63$

10.  $24x^2 - 61x - 8$

20.  $6x^2 - 49x + 49$

# Factoring Quadratic Expressions (J) Answers

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Factor each expression.

1.  $-15x^2 - 8x - 1$

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

2.  $10x^2 - 23x - 5$

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

3.  $-45x^2 - 76x + 9$

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

4.  $6x^2 + 11x + 4$

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

5.  $12x^2 + 20x + 7$

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

6.  $-45x^2 + 22x + 3$

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

7.  $24x^2 + 43x + 5$

$(3x + 5)(8x + 1)$

8.  $-7x^2 + 20x + 32$

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

9.  $-3x^2 + 17x - 24$

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

10.  $24x^2 - 61x - 8$

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

11.  $-5x^2 - 28x - 32$

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

12.  $-6x^2 - 17x + 28$

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

13.  $-54x^2 + 33x + 10$

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

14.  $9x^2 + 42x + 49$

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

15.  $6x^2 - 61x + 63$

$(6x - 7)(x - 9)$

16.  $-4x^2 + 13x + 12$

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

17.  $-81x^2 + 9x + 56$

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

18.  $-7x^2 + 17x + 12$

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

19.  $-21x^2 + 76x - 63$

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

20.  $6x^2 - 49x + 49$

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