

Factoring Quadratic Expressions (I)

Name: _____

Date: _____

Factor each expression.

1. $-3x^2 - 42x - 144$

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

2. $4x^2 + 16x - 20$

12. $-2x^2 - 24x - 64$

3. $3x^2 + 6x - 24$

13. $-3x^2 + 42x - 144$

4. $-3x^2 + 21x - 18$

14. $-2x^2 + 20x - 48$

5. $-2x^2 - 24x - 72$

15. $-4x^2 + 144$

6. $4x^2 - 28x + 40$

16. $2x^2 - 4x - 48$

7. $-2x^2 - 22x - 60$

17. $2x^2 - 20x + 42$

8. $-4x^2 + 32x - 60$

18. $2x^2 - 28x + 98$

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

19. $-5x^2 + 40x - 35$

10. $-2x^2 + 24x - 70$

20. $5x^2 - 50x + 80$

Factoring Quadratic Expressions (I) Answers

Name: _____

Date: _____

Factor each expression.

1. $-3x^2 - 42x - 144$

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

2. $4x^2 + 16x - 20$

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

3. $3x^2 + 6x - 24$

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

4. $-3x^2 + 21x - 18$

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

5. $-2x^2 - 24x - 72$

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

6. $4x^2 - 28x + 40$

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

7. $-2x^2 - 22x - 60$

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

8. $-4x^2 + 32x - 60$

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

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

$2(x + 2)(x + 6)$

10. $-2x^2 + 24x - 70$

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

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

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

12. $-2x^2 - 24x - 64$

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

13. $-3x^2 + 42x - 144$

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

14. $-2x^2 + 20x - 48$

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

15. $-4x^2 + 144$

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

16. $2x^2 - 4x - 48$

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

17. $2x^2 - 20x + 42$

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

18. $2x^2 - 28x + 98$

$2(x - 7)(x - 7) = 2(x - 7)^2$

19. $-5x^2 + 40x - 35$

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

20. $5x^2 - 50x + 80$

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