Name: _____ **Class:** _____ **Date:** _____ **ID: A**

Solving Quadratics by Factoring

Multiple Choice

Identify the choice that best completes the statement or answers the question.

Solve the equation using the zero-product property.

____ 1. $(x-5)(x+8)=0$

a. $x=5$ or $x=8$
c. $x=-5$ or $x=8$
b. $x=5$ or $x=-8$
d. $x=-5$ or $x=-8$

____ 2. $(x-8)(3x-11)=0$

a. $x=-8$ or $x=3\frac{2}{3}$
c. $x=8$ or $x=3\frac{2}{3}$
b. $x=-8$ or $x=-3\frac{2}{3}$
d. $x=8$ or $x=-3\frac{2}{3}$

____ 3. $(2x-8)(5x+5)=0$

a. $x=-4$ or $x=1$
c. $x=-4$ or $x=-1$
b. $x=4$ or $x=-1$
d. $x=4$ or $x=1$

____ 4. $(x-11)(7x+3)=0$

a. $x=-11$ or $x=-\frac{3}{7}$
c. $x=-11$ or $x=\frac{3}{7}$
b. $x=11$ or $x=\frac{3}{7}$
d. $x=11$ or $x=-\frac{3}{7}$

____ 5. $(5x-5)(8x+3)=0$

a. $x=1$ or $x=-\frac{3}{8}$
c. $x=1$ or $x=\frac{3}{8}$
b. $x=-1$ or $x=-\frac{3}{8}$
d. $x=-1$ or $x=\frac{3}{8}$

Short Answer

6. Solve the quadratic equation $x^2+2x-8=0$ by factoring.

7. Solve the quadratic equation $-3w^2-6w+3=0$ by factoring.

Solve the equation using the zero-product property.

8. $(2x+2)(5x-5)=0$

9. $-8n(10n-1)=0$

Solve the equation by factoring.

10. $z^2-6z-27=0$

11. Find the roots of the equation $30x-45=5x^2$ by factoring.

12. Solve by factoring.
$4x^2 + 28x - 32 = 0$

Solve by Factoring

13. $5x^2 - 22x - 15$

14. $4x^2 + 43x + 30 = 0$

15. $3x^2 + 29x + 40 = 0$

16. $5x^2 + 22x + 8 = 0$

17. $5x^2 + 59x + 90 = 0$

18. $3x^2 + 25x + 28 = 0$

19. $4x^2 + 41x + 72 = 0$

20. $2x^2 + 19x + 35 = 0$

21. $4x^2 + 31x + 42 = 0$

22. $5x^2 + 37x + 14 = 0$

23. $4x^2 + 39x + 27 = 0$

24. $5x^2 + 21x + 18 = 0$

25. $5x^2 + 53x + 30 = 0$

26. $3x^2 + 14x + 16 = 0$

27. $3x^2 + 26x + 35 = 0$

28. $4x^2 + 43x + 63 = 0$

29. $3x^2 + 25x + 50 = 0$

30. $4x^2 + 39x + 56 = 0$

31. $5x^2 + 42x + 16 = 0$

32. $3x^2 + 26x + 16 = 0$

33. $3x^2 + 28x + 60 = 0$

34. $2x^2 + 23x + 56 = 0$

35. $4x^2 + 23x + 28 = 0$

Solving Quadratics by Factoring
Answer Section

MULTIPLE CHOICE

1. B
2. C
3. B
4. D
5. A

SHORT ANSWER

6. –4 and 2
7. –1
8. $x = -1$ or $x = 1$
9. $n = 0$ or $n = \frac{1}{10}$
10. $z = -3$ or $z = 9$
11. $x = 3$
12. –8, 1
13. $(5x + 3)(x - 5)$
14. $(4x + 3)(x + 10)$
15. $(3x + 5)(x + 8)$
16. $(5x + 2)(x + 4)$
17. $(5x + 9)(x + 10)$
18. $(3x + 4)(x + 7)$
19. $(4x + 9)(x + 8)$
20. $(2x + 5)(x + 7)$
21. $(4x + 7)(x + 6)$
22. $(5x + 2)(x + 7)$
23. $(4x + 3)(x + 9)$
24. $(5x + 6)(x + 3)$
25. $(5x + 3)(x + 10)$
26. $(3x + 8)(x + 2)$
27. $(3x + 5)(x + 7)$
28. $(4x + 7)(x + 9)$
29. $(3x + 10)(x + 5)$
30. $(4x + 7)(x + 8)$
31. $(5x + 2)(x + 8)$
32. $(3x + 2)(x + 8)$
33. $(3x + 10)(x + 6)$

34. $(2x + 7)(x + 8)$
35. $(4x + 7)(x + 4)$