

Name: _____

Solving Equations by Factoring

A) Solve the following equations by factoring if possible.

1) $x^2 - 10x + 21 = 0$

2) $x^2 + 13x + 40 = 0$

3) $x^2 + 8x + 12 = 0$

4) $x^2 + 14x = 72$

5) $x(x - 2) = 35$

6) $x(x + 8) = 20$

7) $x^2 - 6x - 40 = 0$

8) $x^2 - 60 = 11x$

9) $2x^2 - 7x - 15 = 0$

10) $3x^2 - 7x + 4 = 0$

11) $6x^2 + 17x = -12$

12) $10x^2 - 7x = 6$

13) $8x^2 - 6x - 5 = 0$

14) $3x^2 - 5x = -2$

15) $4x^2 - 9 = 0$

16) $36x^2 - 25 = 0$

B) Solve the following equations by factoring. To simplify the process, remember to first factor out the Greatest Common Factor (GCF).

17) $x^2 - 8x = 0$

18) $x^2 + 10x = 0$

19) $-x^2 - 5x + 36 = 0$

20) $-x^2 - 14x - 48 = 0$

21) $-3x^2 + 21x = 0$

22) $5x^2 - 30x = 0$

23) $3x^2 - 12 = 0$

24) $-7x^2 + 7 = 0$

25) $-5x^2 - 15x + 90 = 0$

26) $-4x^2 + 20x + 24 = 0$

27) $80x^2 + 230x - 30 = 0$

28) $12x^2 - 75x + 18 = 0$

29) $x^3 + 5x^2 + 6x = 0$

30) $x^3 - 7x^2 - 18x = 0$