

Corrective Assignment

Section 9.1: Greatest Common Factor

Factor the following if possible.

1. $12x - 8$

2. $3y^2 + 15y$

3. $7t^2 - 10t$

Use the Zero Product Rule to solve the following factored equations.

4. $2x(x - 3) = 0$

5. $0 = (x - 3)(x + 1)$

6. $3(2x - 5) = 0$

Solve the following by factoring.

7. $4x^2 - 8x = 0$

8. $0 = 10b^2 + 25b$

Section 9.2: Factor Trinomials

Answer the following. Justify your answer by showing work!

9. Is $(x + 2)(x + 3)$ the factored form of $x^2 + 5x + 6$?

10. Is $(x - 3)(x - 7)$ the factored form of $x^2 - 3x + 21$?

Factor the following if possible. Check your answer by multiplying!

11. $x^2 - x - 12$

12. $x^2 + 5x + 6$

13. $x^2 - 2x - 24$

Solve the following by factoring.

14. $x^2 + 5x - 36 = 0$

15. $0 = b^2 - 25$

Section 9.3: Factor Trinomials by Grouping

Answer the following. Justify your answer by showing work!

16.
Is $(2x - 5)(x + 3)$ the factored form of $2x^2 - 6x - 15$?

17.
Is $(4x - 3)(2x - 5)$ the factored form of $8x^2 - 26x - 15$?

Factor the following if possible. Check your answer by multiplying!

18. $2x^2 - 5x - 12$

19. $9x^2 - 1$

20. $12x^2 + 16x - 3$

Solve the following by factoring.

21. $6x^2 - 5x = 6$

22. $4m^2 + 11m = -6$

Section 9.4: Multi Step Factoring

Answer the following. Justify your answer by showing work!

23. Is $3(2x - 5)(x + 4)$ the factored form of $6x^2 + 9x - 60$?
24. Is $2x(4x + 3)(2x + 7)$ the factored form of $16x^3 + 68x^2 + 42x$?

Factor the following if possible. Check your answer by multiplying!

25. $3x^2 - 6x - 45$

26. $x^3 - 4x$

27. $6x^3 + 7x^2 - 3x$

Solve the following by factoring.

28. $2x^2 - 26x = -80$

29. $3m^3 - 15m^2 = 42m$

MIXED REVIEW

STEPS FOR FACTORING

1. Factor out the Greatest Common Factor if possible
2. Look for a Special Case (Difference of Squares)
3. Factor
4. Check your answer by multiplying

REMEMBER:

We don't like the leading term to be negative!

$$-x^2 + 7x - 12$$

Just factor out the negative!

$$-(x^2 - 7x + 12)$$

And then factor ☺

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

Factor the following if possible. Check your answer by multiplying!

30. $t^2 - 9t - 36$

31. $m^2 - 4$

32. $4x^2 - 8x$

33. $5p^2 + 14p - 3$

34. $-16n^2 - 20n + 6$

35. $d^3 - d^2 - 20d$

Solve the following by factoring.

36. $3g^2 - 10g = 8$

37. $0 = 16b^3 - 36b$

38. $x^2 + 8x + 2 = -10$

39. $5m^2 + 20m = 0$

ANSWERS TO UNIT 9 CORRECTIVE ASSIGNMENT

1. $4(3x - 2)$	2. $3y(y + 5)$	3. $t(7t - 10)$	4. $x = 0, 3$
5. $x = -1, 3$	6. $x = \frac{5}{2}$	7. $x = 0, 2$	8. $b = -\frac{5}{2}, 0$
9. YES	10. NO	11. $(x - 4)(x + 3)$	12. $(x + 2)(x + 3)$
13. $(x - 6)(x + 4)$	14. $(x + 9)(x - 4)$	15. $b = -5, 5$	16. NO
17. NO	18. $(2x + 3)(x - 4)$	19. $(3x + 1)(3x - 1)$	20. $(2x + 3)(6x - 1)$
21. $(2x - 3)(3x + 2)$	22. $(m + 2)(4m + 3)$	23. YES	24. YES
25. $3(x - 5)(x + 3)$	26. $x(x + 2)(x - 2)$	27. $x(2x + 3)(3x - 1)$	28. $x = 5, 8$
29. $x = -2, 0, 7$	30. $(t - 12)(t + 3)$	31. $(m + 2)(m - 2)$	32. $4x(x - 2)$
33. $(p + 3)(5p - 1)$	34. $-2(2n + 3)(4n - 1)$	35. $d(d - 5)(d + 4)$	36. $(g - 4)(3g + 2)$
37. $4b(2b + 3)(2b - 3)$	38. $x = -6, -2$	39. $x = -4, 0$	