

9.4 Multi-Step Factoring

NAME: _____

Corrective Assignment #2

DATE: _____

Answer the following. Justify your answer by showing work!

1. Is $3(2x - 5)(x + 4)$ the factored form of $6x^2 + 9x - 60$?	2. Is $2x(4x + 3)(2x + 7)$ the factored form of $16x^3 + 68x^2 + 42x$?
3. Is $-2(3h + 4)(3h - 4)$ the factored form of $-18h^2 + 16$?	4. Is $-(7p - 5)(3p - 2)$ the factored form of $-21p^2 - 29p - 10$?

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

5. $3x^2 - 6x - 45$	6. $x^3 - 4x$	7. $12x^3 + 16x^2 - 3x$
8. $p^3 + 9p^2 + 20p$	9. $8n^2 - 32n + 30$	10. $8d^2 - 50$

Solve the following by factoring.

11. $2x^2 - 26x = 80$

12. $3m^3 - 15m^2 = 42m$

13. $32x^2 = 10x^3 + 6x$

14. $18d^2 + 33d = -9$

15. $5y^3 - 20y = 0$

16. $0 = 2f^3 - 24f^2 + 54f$

ANSWERS TO CORRECTIVE ASSIGNMENT

1. YES	2. YES	3. NO	4. NO
5. $3(x + 3)(x - 5)$	6. $x(x + 2)(x - 2)$	7. $x(6x - 1)(2x + 3)$	8. $p(p + 4)(p + 5)$
9. $2(2n - 3)(2n - 5)$	10. $2(2d + 5)(2d - 5)$	11. $x = 5, 8$	12. $m = -2, 0, 7$
13. $x = 0, \frac{1}{5}, 3$	14. $d = -\frac{1}{3}, -\frac{3}{2}$	15. $y = -2, 0, 2$	16. $f = 0, 3, 9$