Name: _____ Date: _____ Period: _____

5.3 Multiply Polynomials CYU

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Multiplying Polynomials	1 – 5, 13, 17, 18, 21	6 – 10, 15, 16, 19, 20, 23 – 26	11, 12, 14, 22, 23
Writing polynomial expressions in standard form	1 – 5, 13, 17, 18, 21	6 – 10, 15, 16, 19, 20, 23 - 26	11, 12, 14, 22, 23
FOILing	13	15, 16	14
Punnett Squares		23 - 26	
Distribution	17, 18, 21	19, 20	22, 23

Multiply. Write your final answer in standard form. Show all work for full credit.

1. $- 4n^3 \cdot 7n^7$

2. $9u^6(- 3u^5)$

3. $(-5.2x^4)(3x^4)$

4. $\left(-\frac{3}{4}y^7\right)\left(\frac{1}{7}y^4\right)$

5. $(x)(5x^4)(- 6x^7)$

6. $3x(2x + 5)$

7. $2x(6x + 3)$

8. $- 3a(2a + 7)$

9. $4x(5x^2 - 6x - 10)$

10. $- 4b^2(3b^3 - 12b^2 - 6)$

11. $- x(6y^3 - 5xy^3 + x^2y - 5x^3)$

12. $\frac{1}{3}y^2(9y^2 - 6y + 1)$

Multiply using the FOILing Method. Write your answer in standard form. Show all work to earn full credit.

13. $(x + 4)(x + 3)$

14. $\left(x + \frac{3}{5}\right)\left(x - \frac{2}{5}\right)$

15. $(5x^2 + 2)(6x^2 + 2)$

16. $(3x^2 + 1)^2$

Multiply using distribution. Write your final answer in standard form. Show all work to earn full credit.

17. $(x - 2)(x^2 - 3x + 7)$

18. $(x + 3)(x^2 + 5x - 8)$

19. $(x + 5)(x^3 - 3x + 4)$

20. $(a + 2)(a^3 - 3a^2 + 7)$

21. $(2a - 3)(5a^2 - 6a + 4)$

22. $(3 + b)(2 - 5b - 3b^2)$

Multiply using Punnett Squares. Write your final answer in standard form. Show all work to earn full credit.

23. $(x^2 + 5x - 7)(2x^2 - 7x - 9)$

24. $(3x^2 - x + 2)(x^2 + 2x + 1)$

25. $(3x^2 + 2x - 4)(2x^2 - 4x + 3)$

26. $(a^2 + 3a - 2)(2a^2 - 5a - 1)$

CYU Reflection: *How far can you go: basic, intermediate, or advanced?*
Rate your mastery level!
How confident are you with the skills this CYU covered? Circle the score you would give yours elf.

1 2	3 4 5	6 7	8
Basic	Intermediate	Advanced	Solved ALL!