Circuit Training – Beginning Polynomials   **Name _____**

Directions: Beginning in the first cell, do and show the work necessary to find an equivalent polynomial. Then, hunt for your answer and call the next problem #2. Continue in this manner until you complete the circuit. Occasionally your will have to state the leading coefficient, constant term, and/or degree. Note: All answers are in descending order!

Ans: $12x^3a + 3x^2a – 6ax$ # 1 Simplify the following polynomial by combining like terms. $5a + 17 + a + 9$ To advance in the circuit, hunt for the resulting binomial.	Ans: $3x^2 + 3x + 8$ # _____ Distribute: $7(2x^2 + 9x – 3)$
Ans: $6a^2 – 24a – 8$ # _____ Combine like terms: $\qquad -3a^3 + 2a^2 – 4a + 19a + 7 – 2a^2 – a^3$ Leading Coefficient: _____ Degree: _____	Ans: $14x^2 – 4x + 1$ # _____ Distribute and then combine like terms. $\qquad 5(x + 7) + 8(3x + 0.5)$
Ans: $2a + 50$ # _____ Subtract the binomials. $\qquad (6a^2 – 10a) – (5a^2 + 2)$	Ans: $18x - 2$ # _____ Distribute and combine like terms. $\qquad \frac{2}{3}(9x^2 + 3x + 27) + 7(-x^2 + x – 2)$ Leading coefficient: _____ Degree: _____
Ans: $14x^2 + 63x + 20$ # _____ Distribute: $-3(-7 – 2x^2 + 6x)$	Ans: $6a + 26$ # _____ Combine like terms. $-5a – 17 + a + 9$
Ans: $4a^2 + 3a - 2$ # _____ Subtract the binomials. $(8a + 5) – (3a + 1)$	Ans: $3x^2a + 4a^2x + 8ax$ # _____ Distribute: $1.5x(2xa – 4a + 8x^2a)$ Degree: _____ Leading coefficient: _____

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Ans: 29x + 39 # _____ Distribute and combine like terms. $-2(3x - 1) + 8(3x - 0.5)$	Ans: 6a + 4 # _____ Add the trinomials. $(a^2 + 2a + 1) + (3a^2 + a - 3)$ Leading coefficient: _____ Degree: _____
Ans: -4a – 8 # _____ Combine like terms: $5a^2 - 17a + 2 - 10 - 7a + a^2$	Ans: 44ax # _____ Combine like terms. $X^2a + a^2x + 7ax + 2x^2a + 3a^2x + ax$ Degree: _____
Ans: $-x^2 + 9x + 4$ # _____ Distribute and combine like terms: $5(3x^4a + 10ax + 1.8) - 3(5x^4a + 2ax + 3)$ Degree: _____ Constant Term: _____	Ans: $6x^2 - 18x + 21$ # _____ Distribute: $\frac{1}{2}(2 + -8x + 28x^2)$
Ans: 5a + 4 # _____ Subtract the binomials: $(52 + 3a) - (2 + a)$	Ans: $a^2 - 10a - 2$ # _____ Subtract the trinomials. $(2x^2 + 5x + 7) - (-x^2 + 2x - 1)$
Ans: $14x^2 + 63x - 21$ # _____ Distribute: $2(7x^2 + 31.5x + 10)$	Ans: $-4a^3 + 15a + 7$ # _____ Add the binomials. $(8a - 1) + (-2a + 5)$

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