Review Using Rules of Operations with Exponents   Name:_____

Simplify the assigned set of problems. Do **NOT** work ahead. Work should be completed on **this paper**. If there are two or more operations, multiple steps should be shown.

Set A 1. $aaaaa$ 2. $4x - (6x - 2y) + (2x - 7y)$ 3. $7b^2 \cdot b^5$

4. $2x^3 \cdot 7x^3$ 5. $3v - [7w - 8v - (7v - 4w)]$ 6. $(z^8)^5$

7. $(3a^2)^4$ 8. $(9xy)^2(3x^3y^3) + 3(xy)^4(2xy)$ 9. $-7x(5x - 4y)$

10. $-3t(4t + 7u)$ 11. $(7a^5)(2a)^2(5a^2) + (3a^3)(9a^3)^2$ 12. $(3x + 2)(x - 9)$

Set B 1. $3a^2 \cdot a^3$ 2. $a + (3a - 2b) - (4a - 3b)$ 3. $4y^2 \cdot y^5$

4. $(u^7)^{10}$ 5. $3c - (7d - 4c) + (7c - 9d)$ 6. $(y^6)^4$

7. $-3a(2a + 3b)$ 8. $(4ab)^2(2a^2b^2) + 2(ab)^3(4ab)$ 9. $-4m(2m - 3n)$

10. $(5x + 8)(3x - 2)$ 11. $(7mn)^2(2m^2n^2) + 4(mn)^3(3mn)$ 12. $(3x + 5)(x + 2)$

Set C 1. cc 2. $x + (7x - 4y) - (2x - 9y)$ 3. $(x^3)^2$

4. $2y(y + 8)$ 5. $(4d)^3(2d^3) + (-3d)^2(2d)^4$ 6. $2b^3 \cdot 3b^4$

7. $(2b^3)^5$ 8. $(3xy)^2(4x^3y^3) + 6(xy)^4(5xy)$ 9. $(3x + 4)(7x - 2)$

10. $(7a^3b^2)(3a^3b)$ 11. $(7a^2 - 5) - (4a - 3) + (2a + 1)$ 12. $-4t(7t + 3u)$

Set D 1. $(3x + 7)(3x + 1)$ 2. $3x + [2x + 3y - (4x - 7y)]$ 3. $5(2x + 3)$

4. $xxyyy$ 5. $(2x - 3y)(3x + 2y)$ 6. $9y^2 \cdot 5y^2$

7. $(-5a^3)^2$ 8. $(2a)^5(3ab)^3 + (3a^5)(2ab)^3$ 9. $4a^3(-6a)^3$

10. $3d(d + 2g)$ 11. $(7b^2)(3b)^3(8b^2) + (2b)^4(4b^3)$ 12. $\left(\frac{1}{3}y^3\right)^2$

Set E 1. $(x^4)^2$ 2. $(-2c)^2(3c)^3 + (4c^3)(3c)^2$ 3. $3p(p - 11)$

4. $xxxxx$ 5. $9a - [3b + 2a - (5a - 8b)]$ 6. $3x^5(-7x)^2$

7. $7b^4(-3b)^2$ 8. $(3d)^4(2d)^3 + (9d^5)(7d^2)$ 9. $(-2b^4)^4$

10. $-7c(3c - 4d)$ 11. $(x^2 - 3x) + (5x + 2) - (x^2 + 3)$ 12. $(x - 6)(3x + 4)$

Set F 1. bbb 2. $(6x^3 + 7x^2 - 4) - (3x^3 - 2x^2 - 5x + 3)$ 3. $(5x - 9)(5x - 7)$

4. $y(y - 5)$ 5. $(2x - 9) + (6x - 7) - (3x + 1)$ 6. $7a(a - 4b)$

7. $5y^4(-2y)^5$ 8. $(3y - 2) - (6y + 4) + (8y + 2)$ 9. $(-7a)^2(-5a)^2$

10. $(-5y^3)^3$ 11. $(6a)^2(5a^3b^2) + (7a^2b^2)(2a)^3$ 12. $\left(\frac{1}{4}c^3\right)^3$

Set G 1. $aaaab$

2. $(2a^3)(3a^4) + (2a^4)(3a)^3$

3. $(t^3)^2$

4. $6a^3 \cdot 5a^4$

5. $(7m + 3) + (6m + 1) - (4m + 7)$

6. $(-4x)^2(-7x)^2$

7. $(2x^2)^3$

8. $(5c - 9) - (7c + 3) + (1 - 8c)$

9. $(x - 1)(3x + 7)$

10. $5(mn)(mn)(mn)$

11. $(3x^4)(2x^2) + (3x)^3(8x^3)$

12. $-3r(2s - 4r)$

Set H 1. $3(x + 5)$

2. $(3x + 2) - (4x - 7) + (3x + 1)$

3. $(x - 3)(4x + 9)$

4. $mmmmn$

5. $(6x)^2(2xy)^5 + (9x^2)(2xy)^5$

6. $\left(\frac{1}{5}m^3\right)^2$

7. $(x + 9)(3x - 4)$

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

9. $9ppqqqq$

10. $(3y^3)^4$

11. $(2a - 5) + (3a - 1) - (4a + 2)$

12. $3r(2s - 4r)$

Set I 1. $x^5 \cdot x$

2. $(5b^2)(6b^3) + (3b)^3(4b^2)$

3. $(c^4)^2$

4. $(4x - 1)(x + 4)$

5. $(-3r)^2(4r)^3 + (-2r)^3(5r)^2$

6. $c(c - 7)$

7. $3(ac)(ac)(ac)(ac)$

8. $(7x - 5) + (3x - 2) + (8x + 9)$

9. $(3x^2y^3)(2x^3y)$

10. $(6r^4s^2)(2r^2s)$

11. $(9r + 7) - (3 - 7r) + (2r - 9)$

12. $11(abc)(abc)$