Name: _____

Monomials

A)   Multiply the following monomials. Write answers in simplest form.

1) $\left(9x^{10}z^2\right)\left(-x^5y^3\right)$

2) $\left(-8f^6g\right)\left(-7f^2g^5h\right)$

3) $\left(4a^9b\right)^0\left(5a^2b^5c\right)$

4) $\left(1.3a^6b^{11}c^5\right)\left(0.5a^2bc^3\right)$

5) $\left(11c^8\right)\left(-10c^4d\right)$

6) $\left(a^xb^yc^z\right)\left(a^rb^sc^t\right)$

7) $\left(7q^5\right)\left(12q^3r^5\right)$

8) $x^3 \bullet x^4$

9) $-4x^2(-4x)^2$

10) $x(-x^4)(-x^4)$

11) $x(2x^2)^3$

12) $(-6x^3y^6)^2$

13) $x^4(-3x^2)$

14) $(xy^5)^3$

15) $\left(m^4n^6\right)^4\left(m^2n^6p\right)^7$

16) $\left(m^3n^8p^3\right)^{11}\left(m^7n^3p\right)^5$

17) $(xy^3)^2(x^2y)^3$

18) $(-2x)(x^2y)(4x^3y^3)$

19) $(-x)(9x^2y^3)$

20) $3xy(2xy^2)^3$

21) $\left(-19x^2\right)\left(2x^6\right)$

22) $-2\left(x^2\right)^3\left(-\dfrac{1}{2}x\right)^3$

23) $(2s^3r^2)(-2sr^3)^2$

24) $(2a^2bc)(-3a^3b^2c^5)$

25) $(2a^2bc)(-3a^3b^2c^5)$

26) $(2s^3r^2)(-2sr^3)^2$

27) $(6m^2n^4)(-3m^3n^3)$

28) $(xy^2z^3)(x^2yz^2)$

B)   29) What is the area of a square with the length of a side equal to $3a^5$?

C)   30) What is the area of a square with the length of a side equal to $4a^9$?

D)   The area of a rectangle is $36x^3 y^7$ and its width is $6x^2 y^5$.

      31) Find the measure of its length in terms of x and y.

E)   32) What is the area of the rectangle with the width of $6x^2$ $and\ the\ length\ of$ $12x^3$?