Division

$$\frac{a^x}{a^y} = a^{x-y}$$

Subtract Exponents

$\frac{x^{10}}{x^2} = x^8$

$\frac{x^2}{x^{10}} = x^{-8}$

Negative Exponents

$$a^{-x} = \frac{1}{a^x}$$

$\frac{1}{a^{-x}} = a^x$ changes position

Zero Exponents

$$a^0 = 1$$

$(6x)^0 = 1$

$6x^0 = 6 \cdot 1 = 6$

GLUE HERE

Remember:

Coefficient ↓ $6x^5$ ← exponent

↑ Base

Multiplication

$$a^x \cdot a^y = a^{x+y}$$

Add Exponents

$x^5 \cdot x^6 = x^{11}$

$(2^4)(2^1) = 2^5$

Powers

$$(a^x)^y = a^{x \cdot y}$$

Multiply Exponents

$(x^5)^3 = x^{15}$

$(2xy^2)^3 = 2^3 x^3 y^6$

$(2xy^2)(2xy^2)(2xy^2) = 8x^3y^6$

$(-20x^4y^5)(3y^4)$

$(-20 \cdot 3)(x^4)(y^5 \cdot y^4)$

$-60x^4y^9$

$(5xy^4)(10y)$

$50xy^5$

$(2xy^2)^5$

$2^5x^5y^{10}$

$32x^5y^{10}$

$(3x^2y)^3$

$27x^6y^3$

$4xyz^2 \cdot 6y^3z^{10}$

$(4 \cdot 6)(x)(y^1 \cdot y^3)(z^2 \cdot z^{10})$

$24xy^4z^{12}$

$3a^2b^2c^2 \bullet 4ab^3 \bullet 5c^6$

$60a^3b^5c^8$

$(a^2b^6c^4)^{10}$

$a^{20}b^{60}c^{40}$

$(2ab^4c^2)^4$

$16a^4b^{16}c^8$

$\frac{10x^7}{6x} = \frac{5x^6}{3}$

$\frac{2x^5}{6x^2} = \frac{x^4}{3}$

$\frac{4x^{-2}}{1}$

$\frac{4}{x^6}$

$\frac{36x^6y^{-4}}{12x^{-3}y}$

$\frac{3x^9}{y^5}$

$\frac{48x^4y^{12}}{32x^{15}y^3}$

$\frac{3y^9}{2x^{11}}$

$\frac{60x^8y^9}{45x^5y^{14}}$ $\frac{4x^3}{3y^5}$

$\frac{21x^{-5}y}{12x^{-3}z^{-7}}$

$\frac{21x^3yz^{+7}}{12x^5}$

$\frac{7yz^7}{4x^2}$

$\frac{3x^2}{5x^0}$

$\frac{3x^2}{5}$

$\frac{6c^{10}d^4}{3c^5d^0}$

$2c^5d^4$