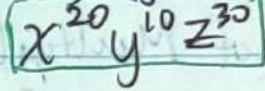
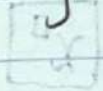
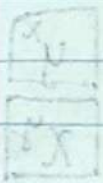


Power of a Power

ex) $(x^4)^3$ means $x^4 \cdot x^4 \cdot x^4$ means $xxxx \cdot xxxx \cdot xxxx$
 $= x^{12}$ ← Rule: mult exponents

Expanded Power Rule

ex) $(x^4 y^2 z^6)^5$ means $(x^4)^5 (y^2)^5 (z^6)^5$
 means $x^{20} y^{10} z^{30}$



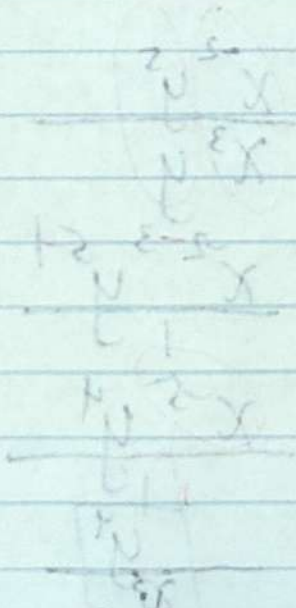
Rule: add exponents

Rule: add exponents

$x^0 = x^2 \cdot x^{-2} = 1$

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

negative exponent



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

$x^2 \cdot x^{-2} = 1$