3-1) Expand the exponential expressions.

a. $y^{7}$=

b. $5\left(2m\right)^{3}$=

c. $\left(x^{3}\right)^{2}$=

d. $4x^{5}y^{2}$=

3-2) Simplify the exponential expressions.

i. $\frac{x∙x∙x}{x}$=

ii. $\frac{x^{5}}{x^{2}}=$

iii. $x^{2}∙x^{3}=$=

iv. $k^{3}∙k^{5}=$

v. $\frac{16k^{3}}{8k^{2}} $=

vi. *m*6 · *m=*

vii. $x^{4}∙x^{5}∙x^{3}=$

viii. $\frac{6x^{3}y}{2y}$=

Challenge: $\frac{5x^{50}}{10x^{15}}$=

3-3) Simplify each exponential expression.



3-4) Write 3 exponential expressions that will simplify to $x^{12}.$

Multiplication:

Division:

Power of a Power (Grouping):

3-5) What is the difference between $x+x$ and $x∙x$?