

The Math Center presents:

A Tip Sheet on

RULES FOR EXPONENTS

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

$$(x^a)^b = x^{ab}$$

$$4^2 \cdot 4^3 = 4^{2+3} = 4^5$$

$$(3^2)^3 = 3^{2 \cdot 3} = 3^6$$

$$x^a \div x^b = x^{a-b}$$

$$x^0 = 1$$

$$5^4 \div 5^2 = 5^{4-2} = 5^2$$

$$(6)^0 = 1$$

ORDER OF OPERATIONS

1) Simplify Within Parenthesis (Or Grouping Symbol)

$$5 - (10 + 2) = 5 - 12 = -7$$

2) Exponents

$$2 + 3^2 = 2 + 9 = 11$$

3) Multiply or Divide (as it appears left to right)

$$24 \div 2 \cdot 12 = 12 \cdot 12 = 144$$

4) Add or Subtract (as it appears left to right)

$$15 - 24 + 13 = -9 + 13 = 4$$

MCC offers a **Math Lab** at both the Bedford and Lowell campuses. Tutoring is available weekdays and some evenings, at no charge. Schedules are posted on the door. Drop in.

In Bedford: AR 214, Tel: (781) 280-3707

In Lowell: City Campus, Room 406, Tel. (978) 656 - 3368