"Solving for x" 01: Order of Operations Notes

MATH ALL

Name_____

Math Operations: add, subtract, multiply, divide

PEMDAS:

P: parentheses ( )
E: exponents $^{\#}$
MD: × ÷
AS: + −

$4+5\times3$

Wrong way: $4+5\times3$ (9×3) = 27

PEMDAS way: $4+5\times3$ (4+15) = 19

Examples:

$10+(2^3-1)$ (8)

$10+7=17$

$28\div7+3\times7$

$4+21=25$

$48\div6\times2-(4+3)$

$48\div6\times2-7$

$8\times2-7$

$16-7=9$

Three places there are invisible parentheses

1. fraction bar: $\frac{(4+10)}{(3-1)}=\frac{14}{2}=7$
2. radical sign: $\sqrt{21-5}=\sqrt{16}=4$
3. absolute value: $|-7+2|=|-5|=5$

More Examples

$11-[56\div(4^2-8)]$

$11-[56\div 8]$

$11-7$

4

$[(3^2+8\times2)\div5]+4\times3$

$[25\div5]+4\times3$

$5+4\times3$

$5+12$

17