

- ① Base
- ② Exponent
- ③ Power
- ~~④ Parantheses, brackets~~
- ⑤ B ⑥ C ⑦ A ⑧ D
- ⑨ 9 ⑩ 36 ⑪ 2^3 ⑫ 9^5
- ⑬ 3^4 ⑭ 5^2 ; 25 ⑮ 16
- ⑯ 64 ⑰ 1 ⑱ 0 ⑲ 729
- ⑳ 32 ㉑ 125

- ④① 29 ④③ 9 ④④ 1
- ④⑦ 6 ④⑨ 15,625
- ⑤① 100,000 ④⑤ 20
- ⑤⑤ 2^3 , 8 cubic units
- ⑤⑥ 3^3 , 27 cubic units
- ⑤⑦ 4^3 , 64 cubic units

$$(d^2) + C$$

$$d = 5$$

$$C = 4$$

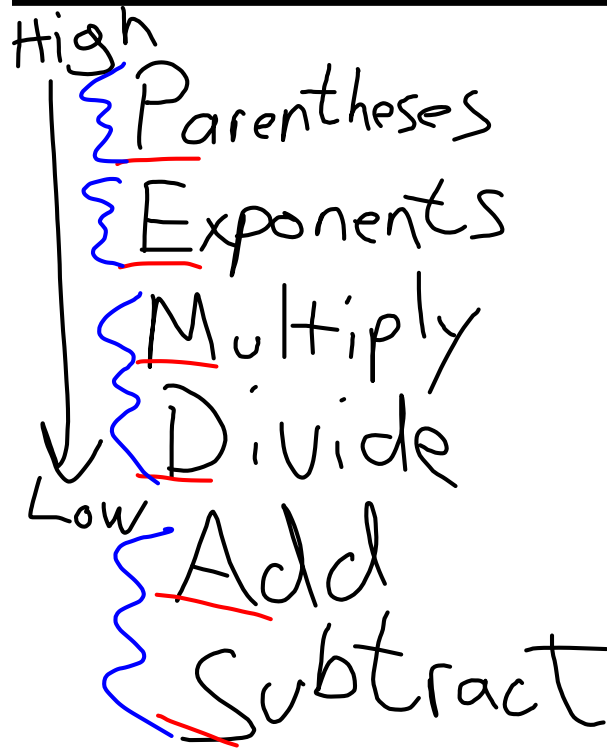
$$((5)^2) + 4$$

$$(25) + 4$$

$$\underline{\underline{29}}$$

Ch. 1.3
Order of Operations

Sept. 5, 2006



ex1 | $x = 4$; $3x^2 + 1$

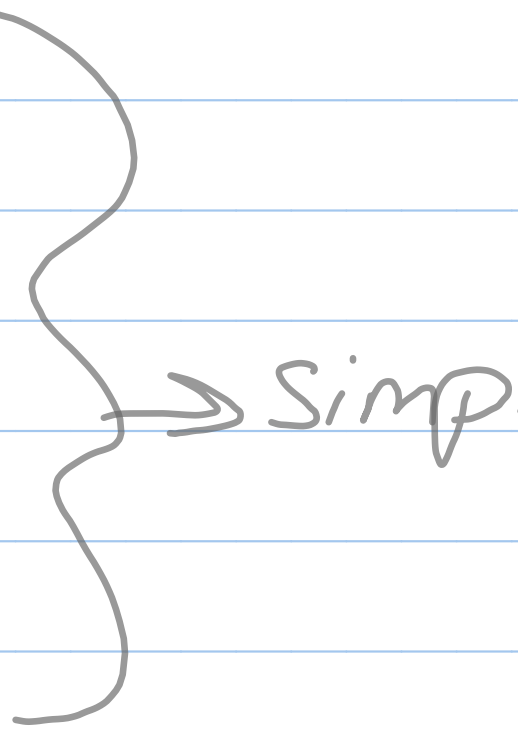
$3x^2 + 1 \rightarrow \text{exp.}$
 $3(4)^2 + 1 \rightarrow \text{sub.}$

$3 \cdot 16 + 1$

$48 + 1$

49

Use
TreeMath



ex2) Let $x=2$; $2x^2+5$

$$2x^2+5 \rightarrow \text{exp.}$$

$$2(2)^2+5 \rightarrow \text{sub.}$$

$$\underline{2 \cdot 4 + 5}$$

$$\underline{8 + 5}$$

$$\underline{\underline{13}}$$

} \rightarrow simp.

Left-to-Right Rule: when operations have the same priority, you perform them in order from Left-to-Right

ex3) $24 - 8 - 6$

$$\begin{array}{r} \underline{24 - 8} \\ 16 - 6 \\ \hline \underline{\underline{10}} \end{array}$$

ex4) $15 \cdot 2 \div 6$

$$\begin{array}{r} \underline{15 \cdot 2} \\ 30 \div 6 \\ \hline \underline{\underline{5}} \end{array}$$

ex 5) $5 + 30 \cdot 4 \div 2^3 - 3$

$5 + 30 \cdot 4 \div 8 - 3$

$5 + 120 \div 8 - 3$

$5 + 15 - 3$

$20 - 3$

17

Fraction Bar : Do All the

stuff on Top...

Do All the stuff on Bottom
Then Simplify.

Every "Branch"
is another
equal sign

exb)

only do 1 step, Per top or
Btm

$$\frac{\underline{7.4}}{8 + \underline{2^2} - 1} = \frac{28}{8 + \underline{49} - 1} = \frac{28}{\underline{57} - 1} = \frac{\cancel{28}}{\cancel{56}} = \frac{\cancel{4}}{\cancel{8}} = \underline{\underline{\frac{1}{2}}}$$

O.T.L.

① pg 18-19 : 1-46 (even),

② Quiz Thursday