

- 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 2^9 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

$$\textcircled{44} (d - c)^2$$

$$d = 5$$

$$c = 4$$

$$(\underline{(5) - (4)})^2$$

$$(\underline{1})^2$$

1
=

Ch. 1.3 Order of Operations

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High
↓
~ Parentheses
~ Exponents
~ Multiply
~ Divide
Low
~ Add
~ Subtract



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

$\rightarrow \text{Simp.}$

we will
Use
Tree Math

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

$$2x^2+5$$

→ exp.

$$2(\underline{2})^2+5$$

→ sub.

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

$$\underline{8 + 5}$$

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

} → Simp.

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

ex3) $24 - 8 - 6$

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

ex4) $15 \cdot 2 \div 6$

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

ex5) $5 + 30 \cdot 4 \div 2^3 - 3$

$$5 + 30 \cdot 4 \div \underline{8} - 3$$

$$\begin{array}{r} 15 \\ 8 \overline{)120} \\ \underline{8} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

$$5 + \underline{120} \div 8 - 3$$

$$5 + \underline{15} - 3$$

$$\underline{20} - 3$$

$$\underline{\underline{17}}$$

O.T.L.

① pg 18: 1-13 (all)

② Quiz Friday