

July 28, 2015

Subset $\rightarrow \subseteq$

↓ All members of "A" must be members of "B" for $A \subseteq B$

$A = \{1, 2, 3\}$
 $B = \{1, 2, 3, 4, 5\}$

Proper Subset $\rightarrow \subset$

All members of "A" must be in "B" but A can not equal B

$D = \{1, 2, 3\}$

True or False

$D \subset D$ F

$D \subseteq D$ T

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Exam #3

#12 $A = \{\emptyset, 0\}$

List the subsets of A

| Cardinal # | Size | # of | what is it |
|------------|------|------|------------------------|
| 0 | 0 | 1 | \emptyset |
| 1 | 1 | 2 | $\{\emptyset\}, \{0\}$ |
| 2 | 2 | 1 | $\{\emptyset, 0\}$ |
| | | 4 | |

$2^n = 2^2 = 4$

$\emptyset = \{\}$ true!

$\emptyset \neq \{\emptyset\}$ true!

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0 - 9

A B C

$10 \cdot 10 \cdot 10 = 1000$

2 9 0

6 6 6

P VP S

30 29 28 = 24,360

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$(-4)^2 = (-4) \cdot (-4) = 16$

$-4^2 = (-1) \cdot 4^2 = (-1) \cdot 4 \cdot 4 = (-4) \cdot (4) = -16$

$2^3 \cdot 2^4 = 2^{3+4} = 2^7$

$2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 2^7$

$(2^3)^4 = (2^3) \cdot (2^3) \cdot (2^3) \cdot (2^3)$

$= 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2$

$= 2^{12}$

$(2^3)^4 = 2^{3 \cdot 4} = 2^{12}$

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