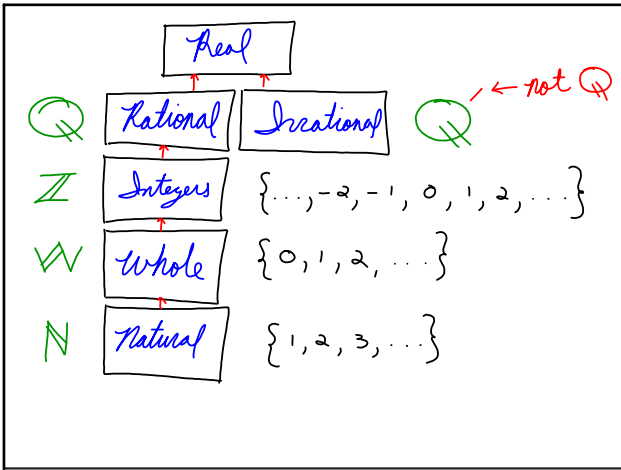


August 23, 2018  
 \* Quiz #1 - Tuesday  
 on the two webpages

Aug 23-8:13 AM

Sets: collection of objects  
 ↓  
 Elements or members

Aug 23-8:16 AM



Aug 23-8:19 AM

$\mathbb{Q}$  → set of rational numbers  
 $\left\{ \frac{a}{b} \mid a \neq b \in \mathbb{Z} \text{ and } b \neq 0 \right\}$   
 ↑ such that ↑ element of  
 ↓ not equal to  
 $\mathbb{Q}' \{ \text{not rational} \}$

Aug 23-8:33 AM

well Defined  
 Vs  
 Not well Defined

Aug 23-8:49 AM

$\in$  element of  
 $\notin$  not element of

Aug 23-8:59 AM

$$88 \in \{8, 16, 24, 32, \dots\}$$

Aug 23-9:01 AM

Cardinal Number  
of a set

ans.: is the number of  
elements in the set.

$A = \{2, \Delta, +\} \quad n(A) = 3$

notation:  $n(A) = \text{cardinal number}$   
                  ↑  
                  set name

Aug 23-9:03 AM

$A = \{0, 2, 4, 6, 8\}$

$n(A) = 5$

$A = \{ \boxed{\{\emptyset\}}, \boxed{\{0\}}, \boxed{\{0, 0\}} \}$

                  1                  2                  3

$n(A) = 3$

Aug 23-9:07 AM

$A = B$

\* Have the same elements

$A \neq B$  are equivalent

\* possibly not same  
members

\* but same cardinal  
number

$A = \{1, 2\} \neq B = \{a, b\}$

Aug 23-9:13 AM