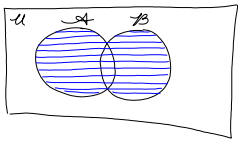
June 17, 2015

2.2 pg 55-56

3, 4, 5, 8, 9, 11, 15, 16, 26, 28, 29, 31, 32, 36

Jun 17-11:02 AM

Union



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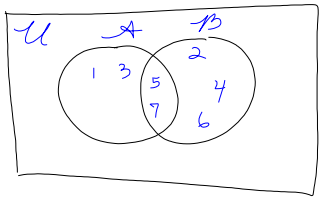
2.3 Set Operations

Union of Sets "or"

"$\cup$" the symbol for union



$A = \{1, 3, 5, 7\}$

$B = \{2, 4, 5, 6, 7\}$

an element is in either A or B or both

$A \cup B = \{1, 3, 5, 7, 2, 4, 6\}$

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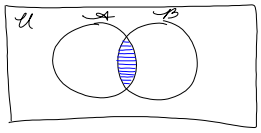
Intersection



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Intersection of Sets

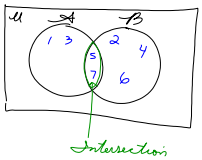
"and"

meaning that an element must be in A and must be in B → the symbol for intersection

$A = \{1, 3, 5, 7\}$

$B = \{2, 4, 5, 6, 7\}$

$A \cap B = \{5, 7\}$



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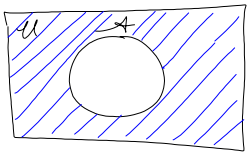
Complement



Everything "not" in set A. i.e. negation of A

A' symbol for the complement of A.

Jun 17-11:32 AM

Complement

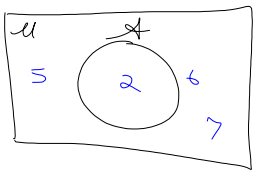
$U = \{2, 5, 6, 7\}$

$A = \{5, 6, 7\}$

$A' = \{2\}$

So, what is $A \cup A' = U$

$= \{2, 5, 6, 7\}$



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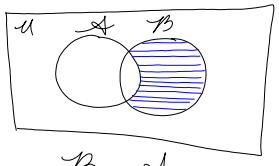
Difference



$B - A$

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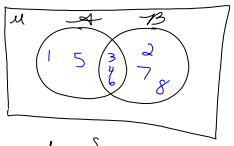
Difference

$A = \{1, 3, 4, 5, 6\}$

$B = \{2, 3, 4, 6, 7, 8\}$

Find $B - A$ & $A - B$



$B - A = \{2, 3, 4, 6, 7, 8\} - \{1, 3, 4, 5, 6\}$

$= \{2, 7, 8\}$

$A - B = \{1, 3, 4, 5, 6\} - \{2, 3, 4, 6, 7, 8\}$

$= \{1, 5\}$

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$U = \{1, 2, 3, 4, 5, 6, 7, 8\}$

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

$B = \{1, 3, 5, 7\}$

$C = \{1, 2, 5, 7, 8\}$

① $B \cup C = \{1, 2, 3, 5, 7, 8\}$

② $C \cap A = \{2, 8\}$

③ $B' = \{2, 4, 6, 8\}$

④ $(A \cup C) - B = \{1, 2, 4, 5, 6, 7, 8\} - \{1, 3, 5, 7\} = \{2, 4, 6, 8\}$

⑤ $(A \cup B \cup C)' = \emptyset$

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$U = \{1, \ldots, 15\}$

$A = \{1, 3, 5, \ldots, 15\}$

$B = \{1, 4, 7, 11\}$

$C = \{2, 4, 6, \ldots, 10\}$

① $(A \cap C) \cup (B \cup C')$

② $(B \cup C)'$ Turn in tomorrow

Jun 17-11:57 AM

Quiz # 4 - 2.1 & 2.2

Jun 17-12:26 PM