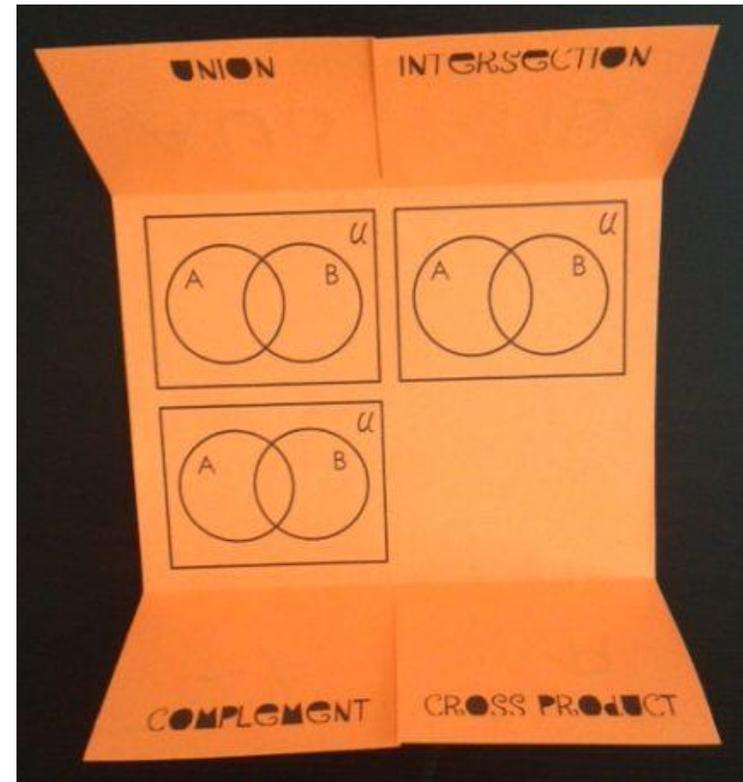
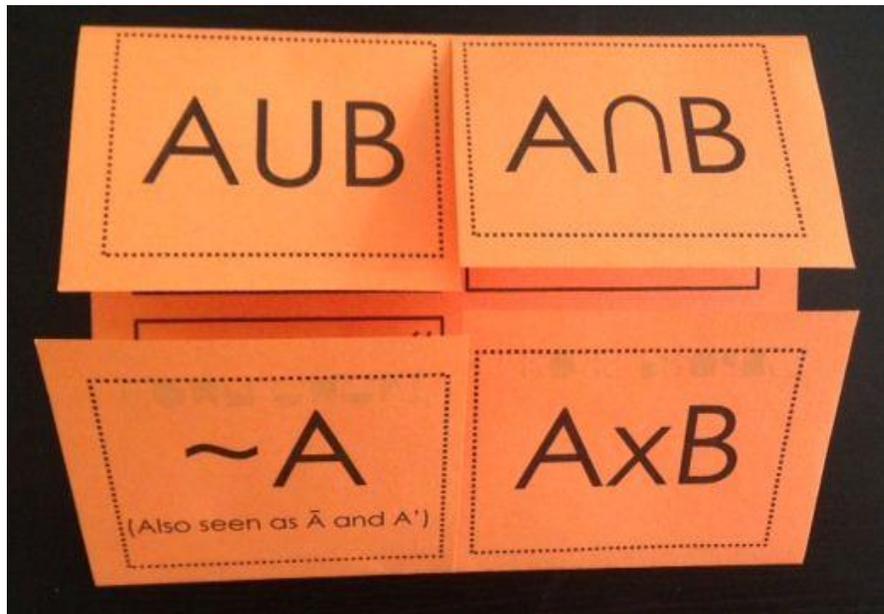


# SET THEORY



$\sim A$ 

(Also seen as  $\bar{A}$  and  $A'$ )

 $A \times B$  $\sim A$ 

(Also seen as  $\bar{A}$  and  $A'$ )

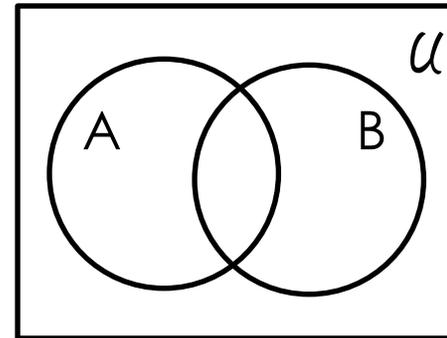
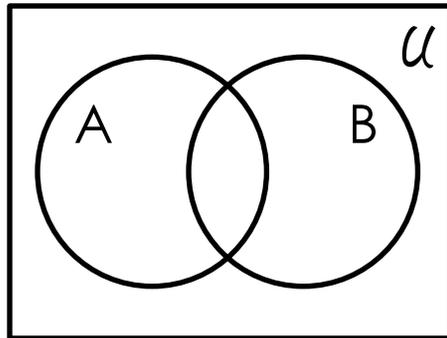
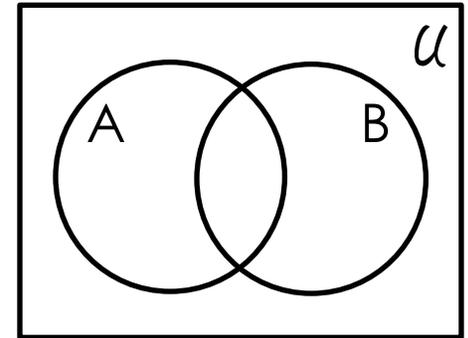
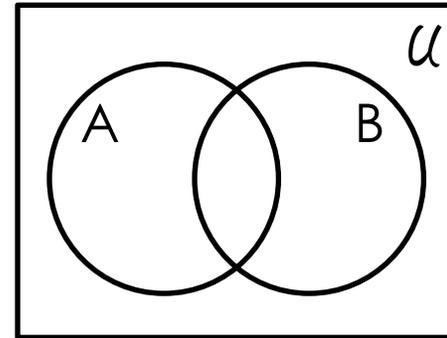
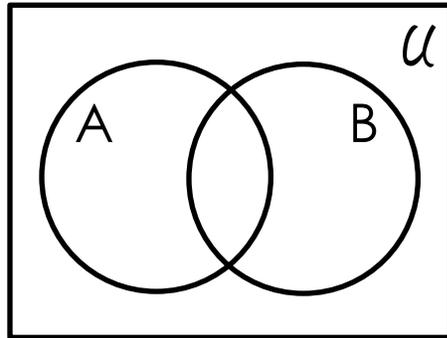
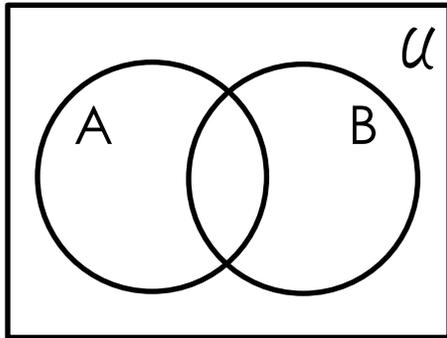
 $A \times B$  $A \cup B$  $A \cap B$  $A \cup B$  $A \cap B$

UNION

INTERSECTION

UNION

INTERSECTION



COMPLEMENT

CROSS PRODUCT

COMPLEMENT

CROSS PRODUCT

$\sim A$ 

(Also seen as  $\bar{A}$  and  $A'$ )

 $A \times B$  $\sim A$ 

(Also seen as  $\bar{A}$  and  $A'$ )

 $A \times B$  $A \cup B$  $A \cap B$  $A \cup B$  $A \cap B$

# UNION

The set of all elements that appear in Set A OR Set B

# INTERSECTION

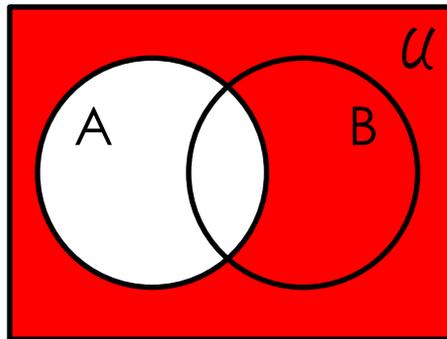
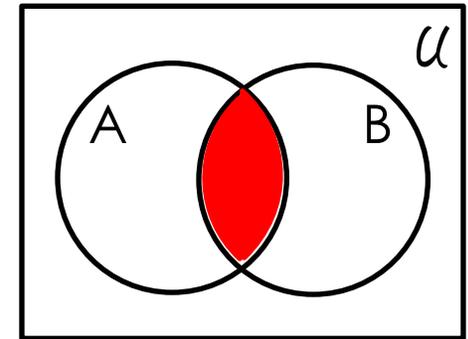
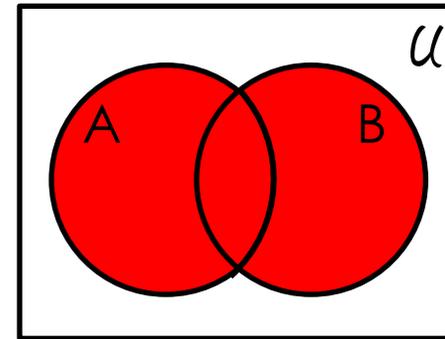
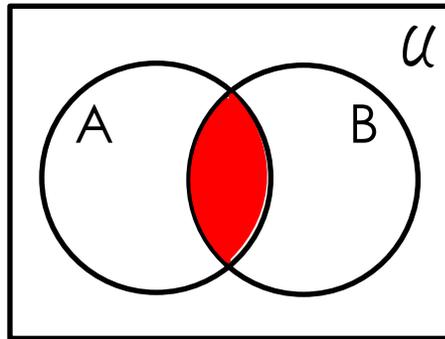
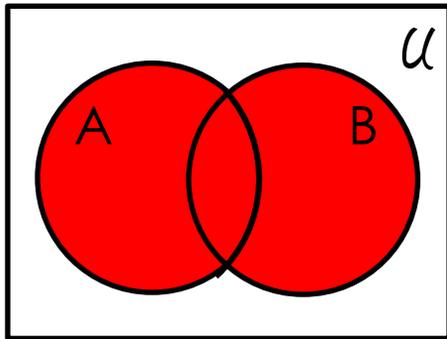
The set of all elements that appear in BOTH Set A AND Set B

# UNION

The set of all elements that appear in Set A OR Set B

# INTERSECTION

The set of all elements that appear in BOTH Set A AND Set B

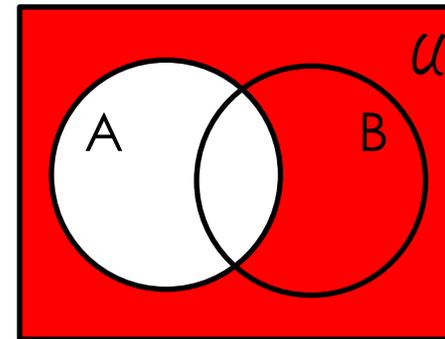


Set A:  $\{x_1, x_2, x_3\}$   
Set B:  $\{y_1, y_2\}$

$A \times B: \{(x_1, y_1), (x_1, y_2), (x_2, y_1), (x_2, y_2), (x_3, y_1), (x_3, y_2)\}$

The set of all elements in  $U$ , that are NOT in Set A. (Everything in the Universal set except for the elements in Set A.)

All possible ordered pairs of the form  $(x, y)$ , where  $x$  is an element of Set A and  $y$  is an element of Set B.



Set A:  $\{x_1, x_2, x_3\}$   
Set B:  $\{y_1, y_2\}$

$A \times B: \{(x_1, y_1), (x_1, y_2), (x_2, y_1), (x_2, y_2), (x_3, y_1), (x_3, y_2)\}$

The set of all elements in  $U$ , that are NOT in Set A. (Everything in the Universal set except for the elements in Set A.)

All possible ordered pairs of the form  $(x, y)$ , where  $x$  is an element of Set A and  $y$  is an element of Set B.

# COMPLEMENT

# CROSS PRODUCT

# COMPLEMENT

# CROSS PRODUCT

# © Lisa Davenport 2012

## Directions

Step 1: Photo copy the two pages (2 & 3) front to back so that the information faces in opposite directions, as shown to the right:



Step 2: Cut the paper in half (each page creates two foldables)

Step 3: Fold in half (to find the center).

Step 4: Fold the top half down to the center crease & fold the bottom half up to that same crease.

Step 5: Cut in between the dotted rectangles on the front, creating 4 flaps.

