Cheatography

Math 1901 Final Cheat Sheet

by SirUmbreon77 via cheatography.com/50420/cs/13917/

Sets	
€	"Is an element of"
U	Union: combine elements of A and B
Λ	Intersection: elements that appear in both sets
⊄	Is not a subset of
⊆	Subset: all elements in A are in B
С	Proper Subset: A is a proper subset of B iff A is a subset of B and B is not equal to A
Ø	Empty set
{}	Empty set
{∅}	Not an empty set
Ā	Compliment : the set consisting of all element in U that are not in A
Set builder notation	{formula for elements restrictions}

Disjunction	on		
р	q	pVq	
Т	Т	Т	
Т	F	Т	
F	Т	Т	
F	F	F	

Probability/Stats		
Perms	P(n,r) = n!/((n-r)!)	
Combs	C(n,r) = n!/(n-r)!r!	
Sample Space	Set of all possible outcomes	
Mean	Sum of set divided by length of set	
Median	Middle term of an organized	
	Take the average of two terms if there is more than one middle term	
Mode	The number that occurs most	

Т	F
F	Т

Negation

Biconditional

Statement ↔

Other Stateme	nts
NAND	Not And: Negation of And
NOR	Not Or: Negation of OR
EOR	Exclusive Or: exactly one of p and q is true
Conditional Statement →	If p then q

p iff (if and only if) q

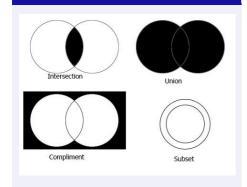
σ^{2}	Calculate the mean For each
(Variance)	number, subtract the mean
	and square the result
	Calculate the average of the

in a set

Calculate the average of the squared differences, or sum up the squared differences and divide by N, the number of values.

 σ Square Root of Variance (σ^2) (Standard

Venn Diagrams



Boolean Tables				
Α	В	A + B	AxB	
1	1	1	1	
1	0	1	0	
0	1	1	0	
0	Ο	Ω	Ο	

Probability Formulas

Deviation)

b= Binomial b(x; n, P) = nCx Px (1 Probability - P)

n= number of trials

x= number of successes

P= probability of success

Binomial Distri-

bution

 $\sigma^2 = n \cdot P \cdot (1-P)$

 $\mu = n \cdot P$

Conjunction			
р	q	рл q	
Т	Т	Т	
Т	F	F	

F

Т

Circuits		
	Open: No electricity passes OGosed: Electricity passes A Switch A	



F

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