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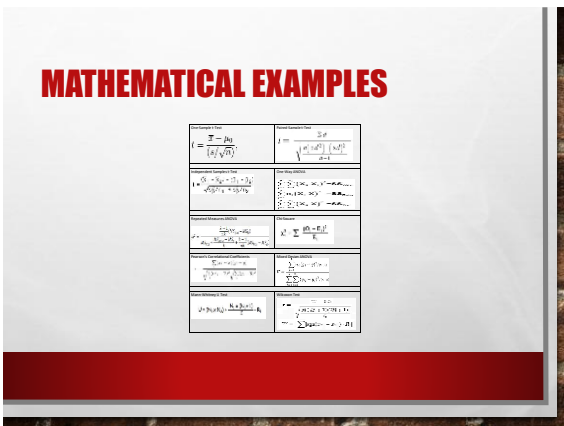
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# MATHEMATICAL EXAMPLES

- ANALYSIS OF VARIANCE
  - ABUELO'S GIFT
- PEARSON'S CORRELATIONAL COEFFICIENTS
  - A TRIBUTE TO CHIQUITA
- CHI-SQUARE (NONPARAMETRIC) TESTS
  - BROTHERS VS. PRESTAMISTA

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# ANALYSIS OF VARIANCE

**One-Way Analysis of Variance (ANOVA)**  
Source of Variation: Between-Groups, Within-Groups

Source	SS	df	MS	F	p-value
Between-Groups	12.500	2	6.250	3.125	0.045
Within-Groups	15.000	12	1.250		
Total	27.500	14			

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A one-way ANOVA was used to determine the mean weight of lake trout caught for adults (father's birthday) among 3 different persons that visited the house. The weights for caught fish were 1.5, 2.0, and 3.0 lbs. The average weight for the father's birthday was 2.1667 lbs. In comparison to the father's birthday, the average weight for the other two persons was 1.5000 lbs. Tukey HSD was used to determine the nature of difference. Although there was a difference in weight among fathers the fishing is not statistically significant (p > 0.05).

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# CHIQUITA




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# PEARSON'S CORRELATIONAL COEFFICIENTS

TITLE: CHQUITA

Property Name	Age	Property Town	Amount Due	Gender	Priority	
Guatemala	23	house	Las Vegas	6000.00	Male	Medium
Quincy	19	apart	Las Vegas	950.00	Male	Low
Corbora	78	cond	Texas	300.00	Male	Low
Diana	22	2 stories	Michigan	200.00	Female	High
Dejane	72	cond	Michigan	700.00	Male	Medium
Dale	93	farm	Wingon MI	20000.00	Female	High
Francis	24	apart	Las Vegas	25.00	Male	Low
Caroline	80	imp	Miami	900.00	Female	Medium
Harriet	28	truck	Wingon MI	450.00	Male	Medium
Marie	22	house	Las Vegas	80.00	Female	High
Jasinda	60	farm	Lasvear	11000.00	Male	High
Laura	81	apart	Las Vegas	700.00	Female	High
Libel	85	sub Jones	Las Vegas	10.00	Male	High
Louise	88	condomer	Las	30.00	Female	High
Luisa	34	shed	Mari	210.00	Female	Medium
Luz	83	trailer	Trumbertn	90.00	Female	High
Lisa	37	apart	Las Vegas	150.00	Female	High
Mandi	25	apart	Las Vegas	28.50	Female	Low
Mary	68	farm	Monte	12000.00	Female	High
Martina	79	farm	Las Vegas	8000.00	Male	High
Marcos	82	house	Trumbertn	2000.00	Female	High
Martini	62	cond	MI	70.00	Female	High
Martina	50	apart	Wingon MI	40.00	Male	Low
Martina	79	farm	Trumbertn	80000.00	Female	High
Monroya	44	trailer	Las Vegas	300.00	Female	High

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# CHI-SQUARE TEST OF ASSOCIATION

Name	Age	Property Town	Amount Due	Gender	Priority	
Guatemala	23	house	Las Vegas	6000.00	Male	Medium
Quincy	19	apart	Las Vegas	950.00	Male	Low
Corbora	78	cond	Texas	300.00	Male	Low
Diana	22	2 stories	Michigan	200.00	Female	High
Dejane	72	cond	Michigan	700.00	Male	Medium
Dale	93	farm	Wingon MI	20000.00	Female	High
Francis	24	apart	Las Vegas	25.00	Male	Low
Caroline	80	imp	Miami	900.00	Female	Medium
Harriet	28	truck	Wingon MI	450.00	Male	Medium
Marie	22	house	Las Vegas	80.00	Female	High
Jasinda	60	farm	Lasvear	11000.00	Male	High
Laura	81	apart	Las Vegas	700.00	Female	High
Libel	85	sub Jones	Las Vegas	10.00	Male	High
Louise	88	condomer	Las	30.00	Female	High
Luisa	34	shed	Mari	210.00	Female	Medium
Luz	83	trailer	Trumbertn	90.00	Female	High
Lisa	37	apart	Las Vegas	150.00	Female	High
Mandi	25	apart	Las Vegas	28.50	Female	Low
Mary	68	farm	Monte	12000.00	Female	High
Martina	79	farm	Las Vegas	8000.00	Male	High
Marcos	82	house	Trumbertn	2000.00	Female	High
Martini	62	cond	MI	70.00	Female	High
Martina	50	apart	Wingon MI	40.00	Male	Low
Martina	79	farm	Trumbertn	80000.00	Female	High
Monroya	44	trailer	Las Vegas	300.00	Female	High

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Table 1: Community Priority Cross-tabulation

		Community Priority		
		Low	High	Total
Gender	Female	62	10	72
	% within gender	87.0%	13.0%	100.0%
	% within Community Priority	87.0%	13.0%	100.0%
Race	White	10	21	31
	% within gender	16.7%	34.5%	51.2%
	% within Community Priority	16.7%	34.5%	51.2%
Age	Child	1	1	2
	% within gender	1.7%	1.7%	3.3%
	% within Community Priority	1.7%	1.7%	3.3%
Total	All	72	32	104
	% within gender	87.0%	31.0%	100.0%
	% within Community Priority	87.0%	31.0%	100.0%

Chi-Square Test

	Chi-Sq	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.077 <sup>a</sup>	1	.005
Likelihood Ratio	8.891	1	.003
Fisher's Linear Association	8.077	1	.005
N of Valid Cases	104		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 1.54.

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**•QUESTIONS? COMMENTS?**

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**Thank you**

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