

Time of day	Observed- Acidents	Expected- Acidents	P(Expected)
Midnight to 3AM	38		0.05
3AM - 6AM	29		0.05
6AM - 9AM	66		0.1
9AM - Noon	77		0.1
Noon - 3PM	99		0.15
3PM - 6PM	127		0.15
6PM - 9PM	166		0.2
9PM - Midnight	113		0.2
Total	715	0	1.00

Problem: Suppose a safety officer proposes that bicycle accidents will occur with the following distributions:  
Midnight - 3AM = .05  
3AM - 6AM = .05  
6AM - 9AM = .10  
9AM - Noon = .10  
Noon - 3PM = .15  
3PM - 6PM = .15  
6PM - 9PM = .20  
9PM - Midnight = .20  
Test that the observed values equal the expected distribution @ alpha = .05 level

**Chi-Square Evaluation**

Ho: Ha:	Observed	Expected	Sum of the Squared Differences (O-E)^2	Goodness of Fit [(O-E)^2] / E
	38		1444	
	29		841	
	66		4356	
	77		5929	
	99		9801	
	127		16129	
	166		27556	
	113		12769	
	715	0	78825	
				<b>Chi- Square Value</b>

**Chi-Square Test Statistic**

**=CHIINV(Alpha,D.F)**

**p-Value**

**=CHIDIST(Chi-Square Value,D.F)**

State Results here: