

4.1 Chi-square Analysis

Null Hypothesis: Having a malignant breast cancer does not depend on each independent variable

Alternative Hypothesis: Having a malignant breast cancer depends on each independent variable

P-value for each independent variable

Pearson's Chi-squared test

```
data: tbl1
X-squared = 378.08, df = 9, p-value < 0.00000000000000022

data: tbl2
X-squared = 539.79, df = 9, p-value < 0.00000000000000022

data: tbl3
X-squared = 523.07, df = 9, p-value < 0.00000000000000022

data: tbl4
X-squared = 390.06, df = 9, p-value < 0.00000000000000022

data: tbl5
X-squared = 447.86, df = 9, p-value < 0.00000000000000022
```

Pearson's Chi-squared test

```
data: tbl6
X-squared = 489.01, df = 9, p-value < 0.00000000000000022

data: tbl7
X-squared = 453.21, df = 9, p-value < 0.00000000000000022


data: tbl8
X-squared = 416.63, df = 9, p-value < 0.00000000000000022

data: tbl9
X-squared = 191.97, df = 8, p-value < 0.00000000000000022
```



4.1 Chi-square Analysis

Cross Tabulation

	ClumpThickness		SizeUniformity		ShapeUniformity		MaginalAdhesion		SingleEpithelialCellSize	
	2	4	2	4	2	4	2	4	2	4
1	0.97841727	0.02158273	0.98927614	0.01072386	0.994219653	0.005780347	0.92366412	0.07633588	0.97727273	0.02272727
2	0.92000000	0.08000000	0.82222222	0.17777778	0.879310345	0.120689655	0.63793103	0.36206897	0.94414894	0.05585106
3	0.88461538	0.11538462	0.51923077	0.48076923	0.566037736	0.433962264	0.53448276	0.46551724	0.39436620	0.60563380
4	0.84810127	0.15189873	0.21052632	0.78947368	0.279069767	0.720930233	0.15151515	0.84848485	0.14583333	0.85416667
5	0.64843750	0.35156250	0.00000000	1.00000000	0.062500000	0.937500000	0.17391304	0.82608696	0.12820513	0.87179487
6	0.45454545	0.54545455	0.00000000	1.00000000	0.068965517	0.931034483	0.14285714	0.85714286	0.02500000	0.97500000
7	0.04347826	0.95652174	0.05263158	0.94736842	0.066666667	0.933333333	0.00000000	1.00000000	0.18181818	0.81818182
8	0.09090909	0.90909091	0.03571429	0.96428571	0.037037037	0.962962963	0.00000000	1.00000000	0.09523810	0.90476190
9	0.00000000	1.00000000	0.16666667	0.83333333	0.000000000	1.000000000	0.00000000	1.00000000	0.00000000	1.00000000
10	0.00000000	1.00000000	0.00000000	1.00000000	0.000000000	1.000000000	0.01818182	0.98181818	0.03225806	0.96774194
	BareNuclei		BlandChromatin		NormalNucleoli		Mitosis			
	2	4	2	4	2	4	2	4	2	4
	1	0.96268657	0.03731343	0.98666667	0.01333333	0.90509259	0.09490741	0.76554174	0.23445826	
	2	0.70000000	0.30000000	0.95625000	0.04375000	0.83333333	0.16666667	0.22857143	0.77142857	
	3	0.50000000	0.50000000	0.77639752	0.22360248	0.26190476	0.73809524	0.06060606	0.93939394	
	4	0.31578947	0.68421053	0.17948718	0.82051282	0.05555556	0.94444444	0.00000000	1.00000000	
	5	0.33333333	0.66666667	0.11764706	0.88235294	0.10526316	0.89473684	0.16666667	0.83333333	
	6	0.00000000	1.00000000	0.11111111	0.88888889	0.18181818	0.81818182	0.00000000	1.00000000	
	7	0.12500000	0.87500000	0.08450704	0.91549296	0.12500000	0.87500000	0.00000000	1.00000000	
	8	0.09523810	0.90476190	0.00000000	1.00000000	0.13043478	0.86956522	0.11111111	0.88888889	
9	0.00000000	1.00000000	0.00000000	1.00000000	0.00000000	1.00000000	0.12500000	0.87500000		
10	0.02272727	0.97727273	0.00000000	1.00000000	0.00000000	1.00000000	0.00000000	1.00000000		

