

## Contingency Table Calculations

Ethan Bolker and Maura Mast, for *Common Sense Mathematics*

Set population to 1 to see percentages in the table.

Set population to a large round number like 1000 to see meaningful numbers of cases.

The incidence, false positive and false negative rates are formatted as percentages.

You can use actual values in Excel formulas to set them - for example, =1/1000 for 0.1%.

population: 10000  
incidence: 0.0130%  
false+: 1.00%  
false-: 50.00%

	actual+	actual-	total
test+	0.65	99.987	100.637
test-	0.65	9898.713	9899.363
total	1.3	9998.7	

0.65% prob(actual+ when test+)  
99.99% prob(actual- when test-)