1. **Two-way table – Fill in the table with your Goldfish data**

Goldfish	With a Face	Without a Face	Total
Yellow	17	17	34
Orange	6	6	12
Red	8	9	17
Green	9	9	18
Total	40	41	81

2. What is marginal distribution? Marginal distribution of one of the categorical variables in a two-way table is the distribution of values of that variable among all individuals described by the table.
   Calculate the marginal distribution for each group.

Goldfish	With a Face	Without a Face	Total
Yellow	17 / 81 = 20.98%	17 / 81 = 20.98%	34 / 81 = 41.96%
Orange	6 / 81 = 7.41%	6 / 81 = 7.41%	12 / 81 = 14.82%
Red	8 / 81 = 9.88%	9 / 81 = 11.11%	17 / 81 = 20.99%
Green	9 / 81 = 11.11%	9 / 81 = 11.11%	18 / 81 = 22.22%
Total	40 / 81 = 49.38%	41 / 81 = 50.61%	81 / 81 = 100%

3. What is conditional distribution? A conditional distribution of a variable is the distribution of values of that variable among only individuals who have a given value of the other variable.
   Calculate the conditional distribution of Goldfish without faces.

Goldfish	With a Face	Without a Face	Total
Yellow		17 / 41 = 41.46%	
Orange		6 / 41 = 14.63%	
Red		9 / 41 = 21.95%	
Green		9 / 41 = 21.95%	
Total		41 / 41 = 100%	