

Probability Distribution

What is a marginal distribution?

1. Consider a random variable G for grades

| G | P($G=g$) |
|---|------------|
| A | 0.1 |
| B | 0.2 |
| C | 0.7 |

2. The above table represents the marginal distribution over G
 - a. $(G = g) \quad \forall g \in A, B, C$
3. i.e. The probability of every possible value that the random variable can take (sums to 1)
4. We denote this marginal distribution compactly by $P(G)$