**Fractions/Decimals/Percent**

Probabilities can be expressed as fractions, percents or decimals.

* Representing probabilities as fractions is probably the easiest. The denominator (bottom number) is the ***TOTAL NUMBER IN THE SAMPLE SPACE***. The numerator is the ***number of the sample space being represented.***
* To change a ***fraction to a decimal***:
  + Divide the numerator by the denominator (calculators are SUPER helpful when doing this ☺)
* To change the ***decimal to a percent***:
  + Multiply the decimal by 100

A jar contains the following marbles:

* 7 blue
* 3 yellow
* 4 red
* 1 black

How many marbles are in the bag? \_\_\_\_\_\_\_\_\_\_

**Express each of the following probabilities as a fraction, decimal & percent.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Probability** | **Fraction** | **Decimal** | **Percent** |
| P(yellow) |  |  |  |
| P (red) |  |  |  |
| P(blue) |  |  |  |
| P(black) |  |  |  |
| P(blue or red) |  |  |  |
| P(not black) |  |  |  |
| P(yellow, red or blue) |  |  |  |
| P(not blue or black) |  |  |  |
| P(white) |  |  |  |
| P(yellow, red, blue or black) |  |  |  |
| P(not yellow or not red) |  |  |  |