Answer on Question #39966, Math, Statistics and Probability

Question:

I have 6 yellow and 5 blue tokens in a bag.

a) I take a token.

What is the chance it is yellow? 39966

b) I do not replace that yellow token.

What is the chance of getting a blue token?

Answer:

$$Probability = \frac{total\ ways\ a\ specific\ outcome\ will\ happen}{total\ number\ of\ possible\ outcomes}$$

a)

In our case specific outcome is take an yellow token. And it is possible 6 ways (6 tokens). Total number of tokens – 5+6=11, so total number of possible outcomes equals 11.

Therefore:

$$Probability = \frac{6}{11} \cong 0.55$$

Answer: $\frac{6}{11}$

a)

Now specific outcome is take a blue token. And it is possible 5 ways (5 tokens). Total number of tokens – 5+6-1=10, so total number of possible outcomes equals 10.

Therefore:

$$Probability = \frac{5}{10} = \frac{1}{2} = 0.5$$

Answer: 0.5