

Subject n°28

Please, don't write on the exam paper.

Samuel has a box of chocolates. Each chocolate is wrapped in identical paper. The chocolates are white, milk, or dark.

Samuel picks a chocolate at random. The table shows the probability that he picks a white chocolate and the probability that he picks a milk chocolate.

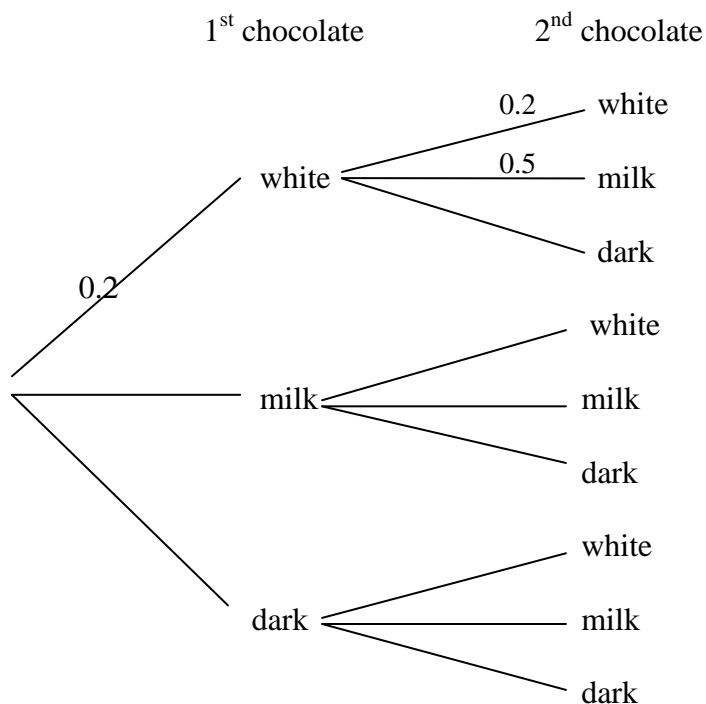
Chocolate	Probability
white	0.2
milk	0.5
dark	

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- What is the probability that Samuel picks a dark chocolate ?
- How can you explain that the probabilities are different although he picks chocolates at random?

2- Samuel picks a chocolate at random. He replaces the chocolate. He then picks another chocolate at random.

- Complete the tree diagram :



- What is the probability that at least one of the chocolates that Samuel picks is dark?