

Conditional probability word problems

Maths

Mrs Dennett



Conditional probability word problems

1. There are 12 counters in a bag. 7 counters are red and 5 counters are blue. Two counters are selected at random.

- Calculate the probability that both counters are red.
- Calculate the probability that both counters are the same colour.
- Calculate the probability that the counters are two different colours.

2. Bruno either stays in or plays football on a Saturday. The probability he plays football is 0.6 and if he stays in, the probability he does his homework is 0.9. If he plays football, the probability he does his homework is 0.45.

What is the probability he does do his homework?

3. Lauren has 4 lemon, 3 strawberry and 2 lime sweets. She takes two sweets at random. What is the probability that both are the same?



Answers



Conditional probability word problems

1. There are 12 counters in a bag. 7 counters are red and 5 counters are blue. Two counters are selected at random.

- a) Calculate the probability that both counters are red. $\frac{42}{132} = \frac{7}{22}$
- b) Calculate the probability that both counters are the same colour. $\frac{62}{132} = \frac{31}{66}$
- c) Calculate the probability that the counters are two different colours. $\frac{70}{132} = \frac{35}{66}$

2. Bruno either stays in or plays football on a Saturday. The probability he plays football is 0.6 and if he stays in, the probability he does his homework is 0.9. If he plays football, the probability he does his homework is 0.45.

What is the probability he does do his homework? **0.63**

3. Lauren has 4 lemon, 3 strawberry and 2 lime sweets. She takes two sweets at random. What is the probability that both are the same?

$$\frac{5}{18}$$

