EoS - E-tutorial 04 - WiSe 2022/2023

ElemStat.E.1.7.00013 (60 Punkte)

Sie haben die folgende Antwort gegeben:

The goal of a well-known dice game is to roll three times the number 1. You use three dice but are only allowed to roll each dice three times at most. Do one or more dice show the number 1, those are set aside and the game is continued with the remaining dice. In the ideal case, all three dice show the number 1 after rolling them once.

a) (10 Points) Please calculate the probability that the player rolls zero times the number 1 in the first roll. 0.5787 ✅

b) (20 Points) Please calculate the probability that the number 1 results once in each of the three rolls. 0.7917 ✅

c) (30 Points) Please calculate the probability that the goal of the game - rolling three times the number 1 - is reached within no more than two rolls. 0.0285 ✅

Die bestmögliche Lösung lautet:

The goal of a well-known dice game is to roll three times the number 1. You use three dice but are only allowed to roll each dice three times at most. Do one or more dice show the number 1, those are set aside and the game is continued with the remaining dice. In the ideal case, all three dice show the number 1 after rolling them once.

a) (10 Points) Please calculate the probability that the player rolls zero times the number 1 in the first roll. 0.578703703703704

b) (20 Points) Please calculate the probability that the number 1 results once in each of the three rolls. 0.791666666666667

c) (30 Points) Please calculate the probability that the goal of the game - rolling three times the number 1 - is reached within no more than two rolls. 0.0285279492455418

Sie haben 60 von 60 möglichen Punkten erreicht.