Conditions

a baby has 5 block in a bucket on block is red one is yellow, one is green one is blue one is black .the baby pull out a block ,look at it and put it back in the bucket, if he does this 4 times before he get board what it the probability the 4 block pulled out are red, yellow, blue and green (in the specific order)

Solution

The probability of this is a rate of 1 favorable outcome from 5 possible outcomes, 4 times in a row. As the events are independent and after each turn we get back into initial state, then:

$$P = \frac{1}{5} \frac{1}{5} \frac{1}{5} \frac{1}{5} = \frac{1}{625}$$

Answer: $\frac{1}{625}$