

When a die is thrown, what is the probability that the number is greater than 1, given that it is odd? a. 1/5 b. 3/5 c. 4/5 d. 2/3

Solution

We must consider this problem under the condition that the number is odd. So we have three variants:

1, 3 and 5 (2, 4 and 6 are “forbidden” numbers, they are even).

Next condition is the number is greater than 1. Now we have two variants: 3 and 5.

The probability that the number is greater than 1, given that it is odd:

$$P(\text{odd number is greater than 1}) = \frac{\text{Number of odd numbers greater than 1}}{\text{Number of unforbidden numbers}} = \frac{2}{3}.$$

Answer: d. 2/3.