

Probability and Relative Frequency - Test

1. When a single, fair dice is thrown, what is the probability of getting:

a. 3	b. a prime number	c. a multiple of 2
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2. A bag contains 3 red, 2 blue and 4 green marbles. If all the marbles are equally likely to be selected, what is the probability of selecting:

a. a red marble	b. a green marble	c. a yellow marble
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3. The probability that it will rain on a certain day is $\frac{2}{7}$. What is the probability that it **will not rain** on this day.

4. If three coins are simultaneously tossed into the air, what is the probability of obtaining:

a. 3 heads	b. <u>At least</u> 2 tails
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5. When a single, fair dice is tossed 72 times, how many times would you expect to obtain a 4?

6. During a traffic survey on the A6 near Matlock, different types of vehicles are recorded with the following frequencies:

Type of Vehicle	Number
Car	237
Bicycle	15
Lorry	127
Motorcycle	43
Tractor	2

If this survey is a represents the relative frequency of the types of vehicles on the road, what is the probability that the next vehicle to travel along the A6 road is:

a. a lorry?

b. a motor cycle

c. a bicycle or a tractor?

7. During the soccer season, the results of Melchester Rovers are shown in this table:

Result	Frequency
Won	32
Lost	10
Draw	4

If this is typical of the team's performance, give an estimate of the number of matches resulting in a draw for the next 100 games.