**1.*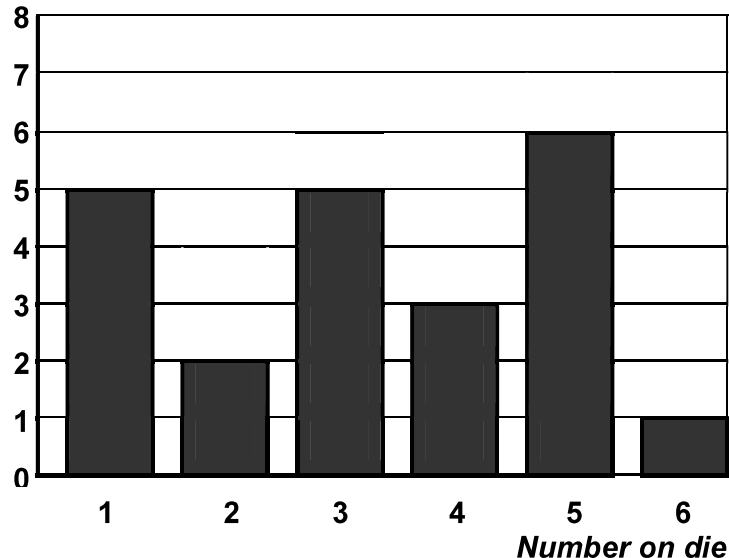* Peter made a large six-sided die from cardboard and stuck some small weights inside so that it was not a 'fair' die. These were the results when he threw it a few times.

Frequency

Number on die

a) How many times did Peter throw the die altogether?

b) Which number was the mode?

c) What was the difference in frequencies between the most and least common numbers?

d) If this graph shows how the weights are really affecting Peter's die, what is the probability that on his next throw he will get a number 5 ?

e) What is the probability that he gets more than 4 on his next throw?

Hint: You need the answer to part **a)** for this question.
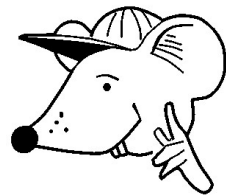
1. Addy, Subby, Multy and Divvy have twenty races over 200m. (This is a long way for a rat - even a Maths Rat!). This table shows how many times each of them won.

Addy   Subby   Multy   Divvy
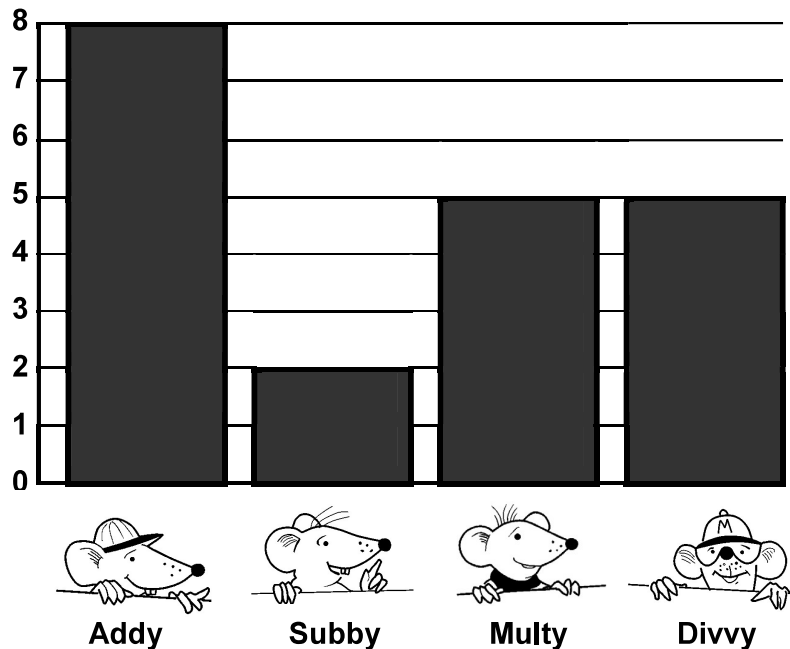
a) Who won the most races?

b) Which two Maths Rats won the same number of races?

c) What was the difference between the maximum number of wins and the minimum number of wins?

d) If they run another race, what is the probability of Multy winning?

e) What is the probability of Addy winning?

f) If they run four more races and each Maths Rat wins one race, what fraction of all the races has Subby won?

g) If the Maths Rat that wins the least number of races gets a wooden spoon, who is that going to be?