GCSE Foundation Maths – Probability – www.m4ths.com

(1) A team can either win or lose a game. The probability of the team winning is 0.62.
What is the probability of the team losing the game?

(2) A darts player can either win or lose a match. The probability that he wins a match is one fifth.
Find the probability of him losing.

(3) A spinner has 4 sections. The probability of the spinner landing on each coloured section is shown below.

Colour	**Black**	**Red**	**Blue**	**Green**
Probability	**0.53**	**0.1**	**0.2**	**0.4**

(a) Explain what is wrong with the table.
(b) If the probability of Black, Red and Blue are correct, what should the probability of Green be?
(c) Fred says the spinner is biased. Is he correct?

(4) A bag has 3 different coloured counters in. The probability of picking each colour is shown in a table below.

Colour	**White**	**Yellow**	**Pink**
Probability	¼	½	

(a) Complete the table.
(b) Kelly says the probability of picking a Yellow is twice that of picking a White. Is she correct?
(c) Kelly adds 3 more white counters to the bag. What will happen to the probability of picking a Pink?

(5) There are 3 letters that are picked at random in a game. The letters are A, B and C.
$P(A) = 0.42$ and $P(B) = P(C)$.
(a) Find the values of $P(B)$ and $P(C)$.
(b) James plays the game 300 times. How many times would expect him to pick the letter (a) A and (b) B?

(6) Harry is doing a survey in a car park. The table below shows the colours of the cars he saw.

Colour	**Silver**	**Black**	**White**	**Other**
Number	**12**	**23**	**4**	**31**
Relative Frequency				

(a) Complete the table.
(b) Harry says he is 3 times more likely to see a White car than a Silver car. Is he correct?
(c) If Harry saw 400 cars in a day, how many would expect to be Black?

(7) A biased spinner has 4 sections. The probability of the spinner landing on each section is shown below.

Colour	**Red**	**Black**	**Yellow**	**Pink**
Probability	0.1	2/5	x	$4x$

(a) Find the value of x
(b) If the spinner is spun 350 times, how many times would you expect t to land on Black?

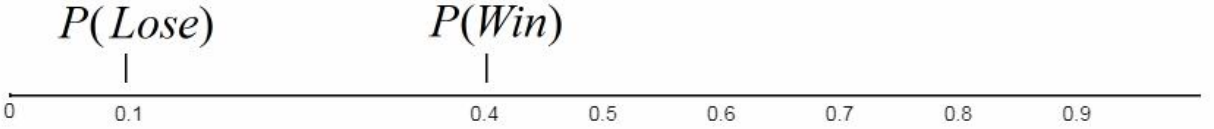
(8) There are n counters in a bag. 3 of the counters are red (R) and the rest are blue (B).
(a) One counter is chosen at random. Circle the correct expression below for $P(R)$

$$\frac{5}{n} \qquad 2n \qquad \frac{3}{n} \qquad 1$$

(b) One counter is chosen at random. Circle the correct expression below for $P(B)$

$$\frac{n-3}{n} \qquad 3-n \qquad 0 \qquad 1+n$$

(9) In a game, a team can either win, lose or draw.
The probability scale below shows the probability of the team winning and losing.



(a) Complete the numbers on the probability scale.
(b) Mark on the scale $P(Draw)$.
(c) Jim says that the team are 3 times more likely to win than they are to lose. Is he correct?

(10) Some coins are in a bag. The ratio of silver coins to bronze coins is 3:2. One coin is chosen at random.
Find the probability of the coin being (a) silver (b) bronze (c) gold.

(11) In a game, the player can either win or lose.
The probability of losing is $1-x$. What is the probability of winning?