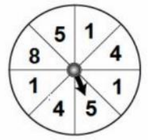
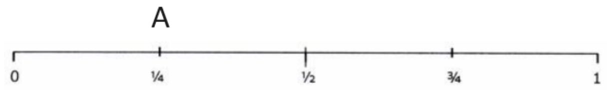
Basic Probability – www.m4ths.com – Steve Blades

(1) There are 8 pens in a box. 3 are red and the rest are blue. One is chosen at random. Write down the probability that the pen is:
(a) Red (b) Blue (c) Not Blue (d) Pink
(2) John spins the spinner below.



Find each of the following answers as a fraction:
(a) P(spinning a number 1) (b) P(NOT spinning a 1)
(c) P(spinning a prime number) (d) P(spin a 6)
(3) On any given day in Town A the probability that it rains is 0.19. Find the probability that it doesn't rain.
(4) Fred plays darts. The probability of him winning is 5/7. Write down the probability of him not winning.
(5) The probability scale is shown below. The probability of A is marked on the scale



Mark where P(NOT A) would be.
(6) Jim has a spinner. The spinner has 4 coloured sections, and the probability of each colour is shown in the table.

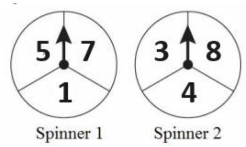
Colour	Red	Blue	Black	Pink
Probability	0.2	0.34	¼	N

Find the value of N.
(7) Janet has a different spinner with 4 sections.

Colour	Red	Blue	Black	Pink
Probability	0.41	1/5	0.1	0.23

Write down what is wrong with her table

(8) Terry has the two spinners shown below



He spins each spinner and multiplies the scores each spinner shows.
(a) Complete the table below:

X	3	4	8
1			
5			
7			

(b) Find the probability of each:
(a) A total of 4 (b) A total greater than 1
(c) A total of 29 (d) A prime number
(e) A square number (f) NOT a square number
(9) Harriet has two fair 6 sided dice. The dice are rolled two numbers rolled are added together.
(a) Complete the table below

Dice 2

Dice 1

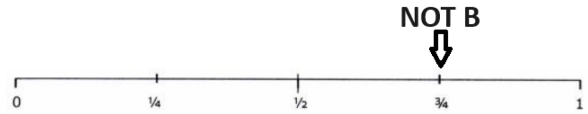
	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

(b) Find the probability of each:
(i) P(Score of 5) (ii) P(Score of 40)
(iii) P(Score of at least 10 (iv) P(Score of less than 4)
(c) Explain why you can't have a probability of 2/37 when rolling the two dice.
(10) A, B and C are the only possible outcomes in a trial. P(A) = 0.32, P(B) = 0.1. Find P(C)
(11) Two sets of cards are shown below.

Fred picks one card from set 1 and one card from set 2 and multiplies the two numbers.
(a) Complete the table below

X			4
9			

(b) Find P(Score greater than 20)
(c) Find P(Score that is a square number)
(d) Explain why there is no score that has a probability of 5/6
(12) The probability scale below shows the probability of NOT B



(a) Mark on the probability scale where the probability of B would be.
(b) P(C) = 0.65. Place P(C) on the scale
(c) Show P(Not C) on the scale.
(13) The table below shows **some** information about two spinners. Each spinner is spun once and the scores shown are multiplied.

X			***6***	
2	2			18
	3	12	18	27
			30	
			42	
8		32		72

(a) Complete the table.
(b) Find each probability:
(i) P(42) (ii) P(6) (iii) P(cube number)
(iv) P(Prime Number) (v) P(Score more than 40)
(14) Fred thinks on a single digit number. What is the probability of him thinking of a cube number?