MNU 3-22a Homework 5 Silver Level

Outcome 1 - Estimating Probability

Draw a probability line for each of these sets of events...

1. (a) Snapping a string on a violin that is NOT the 'E' string.
   (b) An insect picked from 3 ants and a bee will be a bee.
   (c) Picking a black playing card at random.

2. (a) NOT choosing a 1p coin from change of 1p, 2p, 5p and 10p.
   (b) Roll a dice and it will land on a number less than 4.
   (c) Breaking the 'D' string on a bass guitar.

3. (a) The next child you see will be a girl.
   (b) Picking a blue pen from a box with 1 blue and 3 red.
   (c) NOT picking the 1 bad banana from a bag of 4 bananas.

4. (a) Bursting a tyre that is on the back left of the car.
   (b) Roll a dice and it will land on an even number.
   (c) NOT choosing a 'club' from a pack of cards.

5. (a) Toss a coin and it will land on 'heads'.
   (b) NOT choosing 'wind' at random from the four elements.
   (c) Selecting the letter T from the word MATH.

Outcome 2 - Calculating Simple Probability

Write down the probability of each event happening...

1. A roulette wheel landing on a number less than 24.
2. Picking an odd number from the list :- 20, 23, 25, 26, 28, 31, 33, 35.
3. Selecting the letter U from the word CURRICULUM.
4. Picking an even number from the list :- 31, 33, 34, 37, 38, 39, 40.
5. Scoring more than 9 on a dartboard numbered 1-20.
6. Winning a raffle when Buying 11 out of the 200 tickets sold.
7. Picking a boy at random from 14 boys and 15 girls.
8. Choosing a blue pencil from a box containing 6 red, 5 blue and a green pencil.
9. From the days in a non-leap year, picking a day in February.
10. From a bowl containing 9 apples, 5 oranges, 2 pears and an orange, selecting an apple.

Outcome 3 - Choosing at Random

A bag contains a green counter, 4 red counters, 2 yellow counters and 7 blue counters. A counter is chosen at random. What is the probability of choosing...

1. a green counter?
2. a red counter?
3. a yellow counter?
4. a blue counter?
5. a purple counter?

A bag contains 3 purple tokens, 4 red tokens, 5 blue tokens and 8 green tokens. A token is chosen at random. What is the probability of choosing...

6. a purple token?
7. a red token?
8. a blue token?
9. a green token?
10. a yellow token?