1. Nthato has two tickets to the rugby, 3 of his friends would like to go to the rugby but he can only give one of them a ticket so they decide that they will put 8 red marbles and one blue marble into a bag. Whoever draws the blue marble will go with to the rugby. The marbles that have been drawn remain out of the bag.

    a) What is the probability of drawing the blue marble in the first draw?

    b) What is the probability of drawing the blue marble after four red marbles have been removed?

    c) What is the probability of drawing a red marble if 2 red marbles have been removed?

    d) What is the probability of drawing a blue marble once one has been removed from the bag?

2. In a game like monopoly a person will role two die at the same time. Answer the following questions.

    a) Draw up a contingency table to represent all the possible outcomes.

    b) What is the probability of rolling a total of 6?

    c) If a person needs a total of 7 to land on a specific property, what is the probability that they will roll a total of 7?

    d) What is the probability that a person will role a double 5.

    e) What is the probability one rolling three doubles in a row?

    f) What is the probability of rolling a total that is greater than or equal to 9?

    g) In the game of monopoly what is the probability of rolling a one? Explain.

3. Bafana Bafana are going to play three soccer matches in a round robin, before each soccer match the captains of the teams flip a coin to determine which team will have the kick-off.

    a) What is the probability of having the kick-off every time if Kuhne always chooses tails?

    b) Draw a tree diagram to represent the possible outcomes of all three coin tosses.
        Use the tree diagram to answer the questions that follow:

    c) What is the probability of winning all 3 coin tosses if Kuhne chooses H, H, T?

    d) What is the probability of winning all 3 coin tosses if Kuhne choses T, H, T?

    e) What is the probability of losing all 3 coin tosses if Kuhne chooses tails every time?
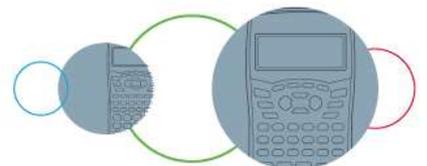
4. Jane has a bag containing 50 sweets, 17 red, 20 blue and the rest are green.

  a) What is the probability that Jane will pick a red sweet from the packet?

  b) How many green sweets are in the packet?

  c) What is the probability that Jane will pick out a green sweet?

  d) What is the probability that Jane will pick out a sweet that is not blue?

5. The tree diagram below shows the probability of Maria choosing various pairs of pants, shirts and shoes. Use this information to answer the questions that follow.
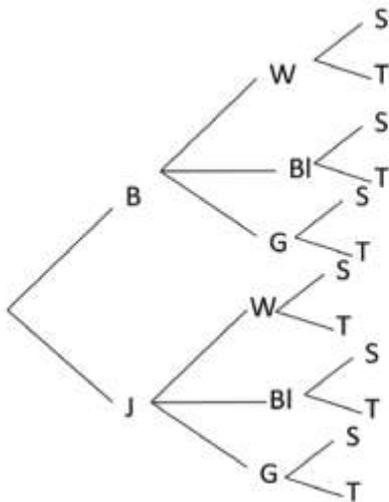
B – Black pants	$P = 0.35$
J – Jeans	$P = 0.65$
W – White shirt	$P = 0.4$
Bl – Blue shirt	$P = 0.3$
G – Green shirt	$P = 0.3$
S – Sandals	$P = 0.5$
T – Takkies	$P = 0.5$

  a) What is the probability that Maria will chose to wear jeans and a white shirt?

  b) How many possible outfits could Maria choose? Which outfit is she most likely to choose?

  c) What is the probability that Maria will choose to wear black pants, a green shirt and takkies?