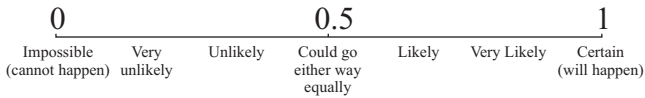


Master Maths 8 Worksheet 60

Probability

60

Name: _____



1. Using the decimal scale shown above, rate the probability of the following events occurring.

- (a) It will be cloudy tomorrow.
- (b) The temperature will be 40°C tomorrow.
- (c) Tomorrow will be Sunday.
- (d) A soccer team will score more than 3 goals in a game.
- (e) An AFL football team will score more than 50 points.

2. List one event that would have the following probabilities of occurring:

- (a) 0 _____

- (b) 0.2 - 0.4 _____

- (c) 0.5 _____

- (b) 0.6 - 0.9 _____

- (c) 1 _____

3. There are 50 tickets in a raffle and Marley buys 20 tickets. What is the probability of Marley winning the raffle:

- (a) as a fraction
- (b) as a decimal

4. Find the following probabilities and write as *fractions in their simplest form*.

- (a) A box of chocolates contains 8 with hard centres and 10 with soft centres.
- (i) What is the probability of randomly choosing one with a hard centre?
 - (ii) What is the probability of randomly choosing one with a soft centre?
 - (iii) One hard centre and one soft centre have been taken. What is the probability of the next chocolate being a hard centre?

(b) In a lucky dip there are 5 CDs, 10 radios and 35 soft toys.

(i) What is the probability of each of these prizes being randomly chosen?

CD Radio Soft Toy

(ii) The first 15 people won 5 CDs, 5 radios and 5 soft toys. What is the probability of each prize being chosen in the next pick?

CD Radio Soft Toy

(c) Suki often catches trams in the city. She decided to record the time she had to wait for a tram for 40 tram rides. These times (in minutes) are listed below.

3 4 6 8 2 11 9 8 4 7
3 5 3 8 6 4 9 12 5 6
8 5 9 7 12 6 13 6 9 15
6 14 9 4 6 5 8 4 3 10

Based on these figures, what is the probability that someone has to wait more than 5 minutes for a tram?