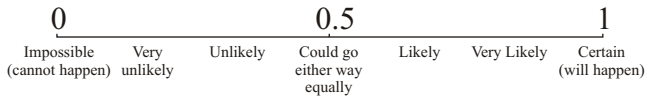


Master Maths Worksheet 48

Probability

48

Name: _____



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

- | | |
|---|---|
| (a) It will be cloudy tomorrow. | <div style="border: 1px solid black; height: 30px; width: 100%;"></div> |
| (b) The temperature will be 40°C tomorrow. | <div style="border: 1px solid black; height: 30px; width: 100%;"></div> |
| (c) Tomorrow will be Sunday. | <div style="border: 1px solid black; height: 30px; width: 100%;"></div> |
| (d) A soccer team will score more than 3 goals in a game. | <div style="border: 1px solid black; height: 30px; width: 100%;"></div> |
| (e) An AFL football team will score more than 50 points. | <div style="border: 1px solid black; height: 30px; width: 100%;"></div> |

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 |
| <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> | <div style="border: 1px solid black; width: 80px; height: 40px; margin: 0 auto;"></div> |

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	
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- (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	
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- (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?