

# Master Maths 10 Worksheet 71

## Probability 1

# 71

**Name:** \_\_\_\_\_

1. Choose which of the following decimal probabilities best describes the outcome descriptions below.

**0   0.2   0.7   1**

- (a) Event A will most likely occur
- (b) Event B will not occur
- (c) Event C will occur
- (d) Event D will most likely not occur

2. One number is chosen from the following.

**4      16      36      9      39      21**  
**24   11      23      28      15      42**

Find the following probabilities. Give answers as fractions in their simplest form.

- (a) Pr(the number is even)
- (b) Pr(the number is greater than 30)
- (c) Pr(the number is a multiple of 3)

3. The probability of winning a prize in a raffle was 0.072. What is the probability of not winning a prize?

Give answer as a decimal.

4. There are 120 boxes in a lucky dip. One box has an electronic game, five boxes have movie tickets, 14 boxes have chocolates and the other boxes are empty.

Write the following probabilities as fractions in their simplest form.

- (a) What is the probability of the first pick being:
  - (i) the game?
  - (ii) a chocolate?
  - (iii) a prize?

- (b) The first 10 picks are the game, two tickets, three chocolates and four empty boxes. What is the probability of the next pick being a prize?

5. Tayla propagates seeds from native plants. She obtained 80 seeds of a new variety and found that 65 germinated.

- (a) Based on these results, what is the probability that a seed will germinate? Give answer as:
  - (i) a fraction in its simplest form
  - (ii) a decimal

- (b) If Tayla collected 560 of these seeds, how many could she expect to germinate?

6. A footballer had 50 kicks at goal. 14 of the kicks missed to the left of the goal, 8 missed to the right and the other kicks were goals.

- (a) Based on these figures find the following probabilities as percentages.

- (i) Pr(he kicks a goal)
- (ii) Pr(he misses to the left)
- (iii) Pr(he misses to the right)

- (b) If he has an average of 12 kicks at goal each game and plays 24 games, how many goals will he be expected to kick? Give answer to the nearest goal.

7. The population of Coff Bay is 14 000. In one year 450 of the population caught influenza. The population of the neighbouring town of Achey Heads is 7500. In Achey Heads 265 people caught the influenza.

Find the percentage of each town that caught influenza (one decimal place) and state in which town you were more likely to catch it.

Coff Bay	<input style="width: 80px; height: 30px;" type="text"/>	Town more likely to catch influenza
Achey Heads	<input style="width: 80px; height: 30px;" type="text"/>	<input style="width: 150px; height: 30px;" type="text"/>