Mutually Exclusive Events from Tables

(a) A biased spinner has four sections – red, blue, green and white. The table shows the probability of the spinner landing on each section.

Colour	Red	Blue	Green	White
Probability	0.42	0.15		0.31

(i) Work out the probability that the spinner lands on green.

(ii) What is the probability that the spinner does not land on red?

(iii) If the spinner is spun 500 times, how many times would you expect it to land on white?

(b) In a farmer's field there are sheep, pigs, cows and goats. An animal is chosen at random. The probability of each animal being chosen is shown in the table. The probability of choosing a pig, goat and sheep respectively are in the ratio $3:2:5$.

Animal	Sheep	Pig	Cow	Goat
Probability	0.4		0.2	

(i) Work out the probability that a goat is chosen.

(ii) Calculate the probability that a pig or cow is chosen.

(iii) What is the minimum number of animals that are in the farmer's field?

(c) There are four flavours of sweet in a jar – mint, lemon, orange and cola. A sweet is selected at random and the probabilities are shown in the table.

Sweet	Mint	Lemon	Orange	Cola
Probability	$2x$	y	$x+y$	$4x$

Given that the probability of choosing a lemon or orange sweet is 0.64:

(i) Work out the probability of choosing a lemon sweet.

(ii) Find the probability of choosing a sweet which is mint or cola flavoured.

(iii) If there are 70 orange sweets in the jar, how many sweets are there in total?

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