Ex 3.7

Q1 one of Twenty different vouchers
Simulation ⇒ Calculator to select random N°s
1 → 20.
randomly select until all 20 N°'s are got.
[Shift Mode 2] 20 × Ran#

Q2 On cards
8 Numbers: 1 and 2 = fish (2/8)
3 = Vegetarian (1/8)
4, 5, 6, 7, and 8 = Meat (3/8)

Mix up cards, randomly draw 10, replacing each time and record selection.

Repeat a N° of times for more accuracy.

Q3 4 children Boy/Girl ⇒ Coin. H=Boy
T=Girl.
Toss 4 times for a family
repeat a N° of times.

Q4 10 Cards Numbered 1→10.
allow N°'s 1→8 to represent left
and N°'s 9 & 10 to represent right.
or use calculator to randomly select
numbers 1→10.

Q5 (i) Win home = 0·7
Win away = 0·4

12 (home) × 0·7 = 8·4 games win
13 (away) × 0·4 = 5·2 games win.

8·4 + 5·2 = 13·6
⇒ Should win 14 games.

(ii) N°'s 1 → 10

Q6 8 figures.
Randomly select N°'s 1 → 8 on calculator record N° of times it take to get all numbers 1 to 8. Repeat a N° of times

Q7 P(of a 6) = 1/6. P(not 6) = 5/6.

~~P(of 6 in 4 Rolls)~~
P(at least 1 six) = 1 − P(No 6)

$= 1 - \binom{4}{0}\left(\frac{1}{6}\right)^0\left(\frac{5}{6}\right)^4$
= 1 − 0·48
= 0·52.

Simulation = Roll the dice 4 times and record results. Repeat a N° of times.

Q8 Ans = 3.
Simulation → Toss Coins.