March 30th

£100 between 100 people.

Every man receives £3, every woman receives £2 and every child receives 50p.

How many men, women and children are there?

m + w + c = 100 (1)

3m + 2w + ½ c = 100 (2)

2 x (2) – (1) gives

5m + 3w = 100 while c = 100 – (m + w)

There are infinite real solutions but we are only interested in integer solutions

Investigating possible values for m gives these possible combinations:

Men	Women	Children
2	30	68
5	25	70
8	20	72
11	15	74
14	10	76
17	5	78
20	0	80