

Sealed Solution

Age 7 to 11 ★★

A set of ten cards, each showing one of the digits from 0 to 9, is divided up between five envelopes so that there are two cards in each envelope. The sum of the two numbers inside it is written on each envelope:



What numbers could be inside the "8" envelope?

Rachel earns £650 a week. She is paid every 4 weeks and has $\frac{3}{8}$ taken off in tax.

She then pays $\frac{2}{5}$ of the remainder in rent and bills.

- a How much money does she have left each month?
- b How much would this be over the year?



Billy has gained £144 for not playing on his games console. His Mum gives him an amount of money per night if he does not play on it. It is a whole number of pounds.

- a What possible amounts of money could his Mum give him each night?
- b Which are the most realistic amounts? Why?



ANSWERS

1)

I found three solutions:

7	8	13	14	3
4 & 3	0 & 8	7 & 6	9 & 5	1 & 2
7 & 0	5 & 3	9 & 4	8 & 6	1 & 2
5 & 2	7 & 1	9 & 4	8 & 6	0 & 3

2) a) £975 b) £11700

3)

Table below shows the possible ways Billy's Mum could reward him. The highlighted area is the most realistic.

£	Number of days	£	Number of days
1	144	144	1
2	72	72	2
3	48	48	3
4	36	36	4
6	24	24	6
8	18	18	8
9	16	16	9