Cinema Problem Building Block A
A cinema has 100 seats. The ticket prices are:
£10 for adults
50p for pensioners

What is the minimum that the cinema's takings could be, if all 100 tickets are sold?
What is the next smallest amount that the takings could be? And the next? And the next...?

The cinema took £449 one day. Work out how many adults and how many pensioners bought tickets, if all the seats were filled.

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Cinema Problem Building Block B
A cinema has 100 seats. The ticket prices are:
£10 for adults
10p for children

What is the minimum that the cinema's takings could be, if all 100 tickets are sold?
What is the next smallest amount that the takings could be? And the next? And the next...?

The cinema took £208 one day. Work out how many adults and how many children bought tickets, if all the seats were filled.

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Cinema Problem Building Block C
A cinema has 100 seats.
The ticket prices are:
50p for pensioners
10p for children

What is the minimum that the cinema's takings could be, if all 100 tickets are sold?
What is the next smallest amount that the takings could be? And the next? And the next...?

The cinema took £20 one day. Work out how many pensioners and how many children bought tickets, if all the seats were filled.

Cinema Problem Building Block D
The ticket prices at a cinema are:
£10 for adults
50p for pensioners

How many different ways can you find of selling tickets so that the takings are exactly £60?

The cinema introduces a child ticket for 10p. The cinema manager starts to list the different combinations of adults, children and pensioners that will earn him exactly £60. Part of his table is shown below:

Adults	Pensioners	Children
6	0	0
5	20	0
5	19	5
5	18	10

4	40	0
4	39	5
4	38	

Without listing all the combinations work out how many different ways there are to earn exactly £60.
What is special about the total number of tickets sold when exactly 4 adult tickets are sold (and the takings are exactly £60)? Explain why.

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Cinema Problem Final Challenge
A cinema has 100 seats.
Show how it is possible to sell exactly 100 tickets and take exactly £100 if the prices are:
£10 for adults
50p for pensioners
10p for children

Is there only one solution?