



Problem of the Week

Problem A

Colin's Coloured Blocks

Colin arranges blocks in a 12×12 grid. He starts in position A1 then follows a snake pattern to fill the grid. When he reaches the end of the first row, he continues filling up the second row from right to left. When he reaches the third row, he fills from left to right and so on. All the odd numbered rows are filled from left to right and the even numbered rows are filled from right to left.

Colin uses yellow, blue, red and green blocks to fill the grid. He starts with 1 yellow block, then 3 blue blocks, then 5 red blocks, then 7 green blocks. He continues the pattern starting with yellow blocks again. Each change of colour has 2 more blocks than the previous colour. The beginning of the pattern is shown here:

	A	B	C	D	E	F	G	H	I	J	K	L
1	Y	B	B	B	R	R	R	R	R	G	G	G
2	Y	Y	Y	Y	Y	Y	Y	Y	G	G	G	G
3	Y											
4												
5												
6												
7												
8												
9												
10												
11												
12												

- A) What is the colour of the block at position F8 on the grid?
- B) What is the colour of the block at position J9 on the grid?
- C) What is the colour of the block at position B11 on the grid?
- D) If Colin starts with 50 blocks of each colour, how many yellow, blue, red, and green blocks does he have left over after filling the grid?

