

Math League Game 4: Team Questions

1. Today's date, May 15th, 2004, is a Saturday.

What is the next year for which May 15th will fall on a Saturday?

(Hint: don't forget about leap years!)

2. The integers b and c are chosen so that:

- (i) The quadratic equation $5x^2 + bx + c = 0$ has two roots, one of which is 2.
- (ii) The quadratic equation $5x^2 + cx + b = 0$ has two roots, one of which is 3.

Determine the values of b and c .

3. In the figure, each row and column contains each of the numbers from 1 to 6, and each 3 by 2 mini-rectangle (shown in thick lines) also contains each of the numbers from 1 to 6.

Determine the value of X, which is marked in the top right corner of the square.

2			1		X
	4		5		
				2	4
6					2
	3				5
		6	3		