

1

In a box there are some buttons.

45 are large and the rest are small.

Some are yellow and the rest are green.

The number of small is $\frac{5}{3}$ of the number of large.

The number of green is 300% of the number of yellow.

There are 12 small yellow buttons.

How many large green buttons are there?

You may use the two-way table to help you.

[4 marks]

	Large	Small	
Yellow	18 (1)	12	30 (1)
Green	27 (1)	63	90
	45	75 (1)	

$$\text{small} : \frac{5}{3} \times 45 = 75$$

$$\text{Total} : 45 + 75 = 120$$

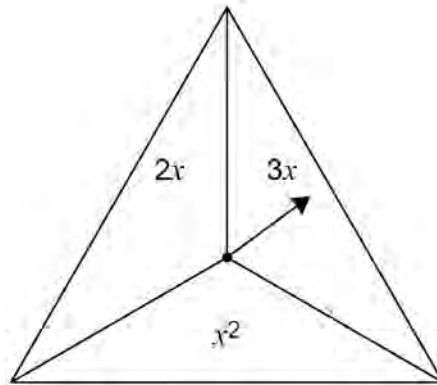
$$\text{yellow} : \frac{1}{4} \times 120 = 30$$

Answer 27

2

In a game,

- an ordinary fair six-sided dice is rolled
- the fair spinner shown is spun.



The score is the dice number **substituted** into the spinner expression.

2 (a) Complete the table to show all of the possible scores.

[2 marks]

	1	2	3	4	5	6
$2x$	2	4	6	8	10	12
$3x$	3	6	9	12	15	18
x^2	1	4	9	16	25	36

2