

1. The table gives information about the number of points scored by each of 16 students in a game.

Number of points	Frequency
0	1
1	3
2	5
3	4
4	3

Tina worked out the median of the number of points scored to be 5

- (a) Explain why it is not possible for the median to be 5

The number of points only goes up to 4. ✓

(1)

Tina also worked out the total number of points scored by the 16 students in the game. Here is her working.

$$(0 \times 1) + (1 \times 3) + (2 \times 5) + (3 \times 4) + (4 \times 3) = 1 + 3 + 10 + 12 + 12 = 38$$

Tina made a mistake in her working to find the total number of points scored.

- (b) Describe the mistake that Tina made.

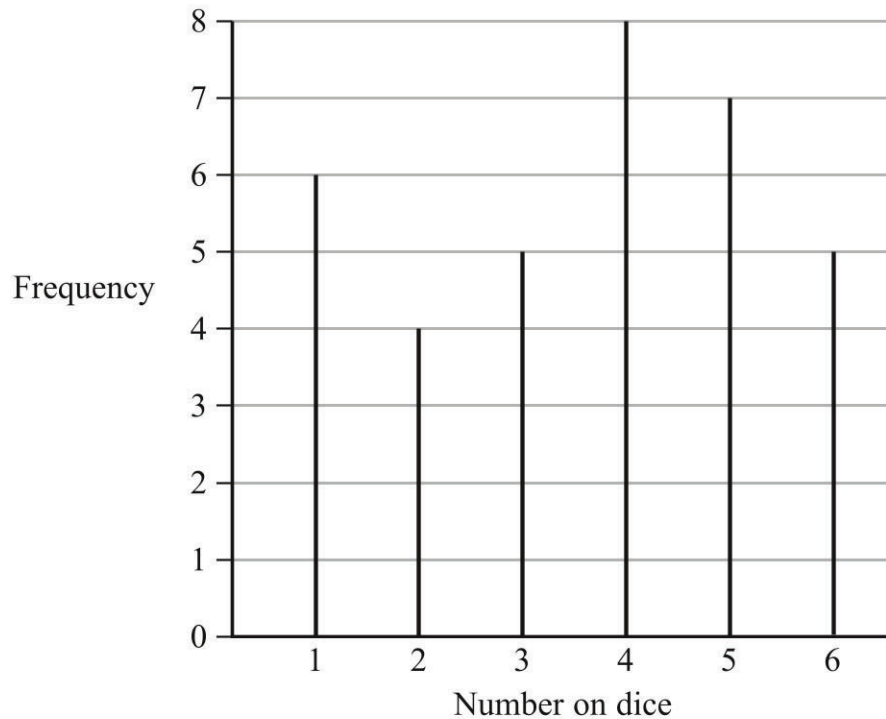
$0 \times 1 = 0$ , not 1 as Tina has stated. ✓

(1)

(Total for Question is 2 marks)

2. 5 students throw a dice.  
They each throw the dice the same number of times.

The diagram gives information about the number of times the dice lands on each number.



Work out how many times each student throws the dice.

Find out how many times the dice is rolled in total

$$\text{Total Roles} = 6 + 4 + 5 + 8 + 7 + 5 = 35 \text{ (1)}$$

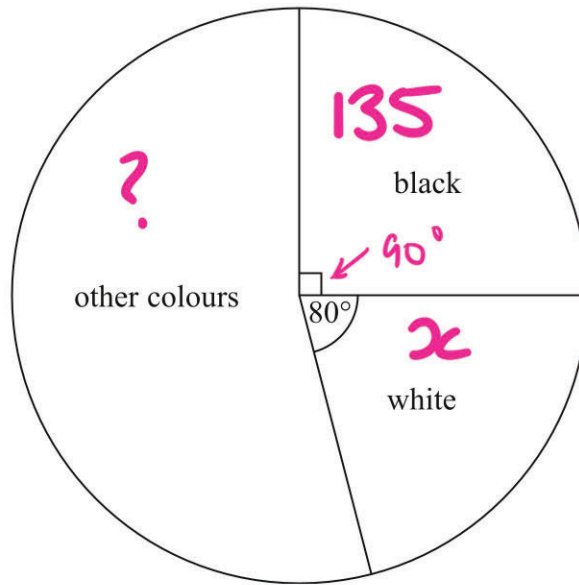
Between 5 students dice rolled 35 times

$$\text{Each student rolls dice } \frac{35}{5} = 7 \text{ times}$$

Because each  
roll same number  
of times

7 times (1)

3. The pie chart gives information about the colour of each car in a car park.



There are 135 black cars in the car park.

(a) Work out the number of white cars in the car park.

$$\begin{array}{l}
 90^\circ = 135 \text{ cars} \\
 \div 90 \downarrow \quad \downarrow \div 90 \\
 1^\circ = 1.5 \text{ cars} \quad (2) \\
 \times 80 \downarrow \quad \downarrow \times 80 \\
 80^\circ = 120 \text{ cars}
 \end{array}$$

$$\frac{120 \text{ white cars}}{(3)}$$

There are 50 grey cars in the car park.

A car in the car park is picked at random.

(b) Find the probability that this car is grey.

From part a) 135 black cars, 120 white cars

From part b) 50 grey cars

$$\begin{array}{l}
 \text{Total cars} \rightarrow \text{from a) } 90^\circ = 135 \quad 50 \quad 540 \text{ total cars} \\
 \times 4 \downarrow \quad \downarrow \times 4 \\
 360^\circ = 540
 \end{array}$$

$$\text{Probability car is grey} = \frac{50}{540}$$

$$\frac{50}{540} \quad (2)$$