1 250 trains arrived at a station.

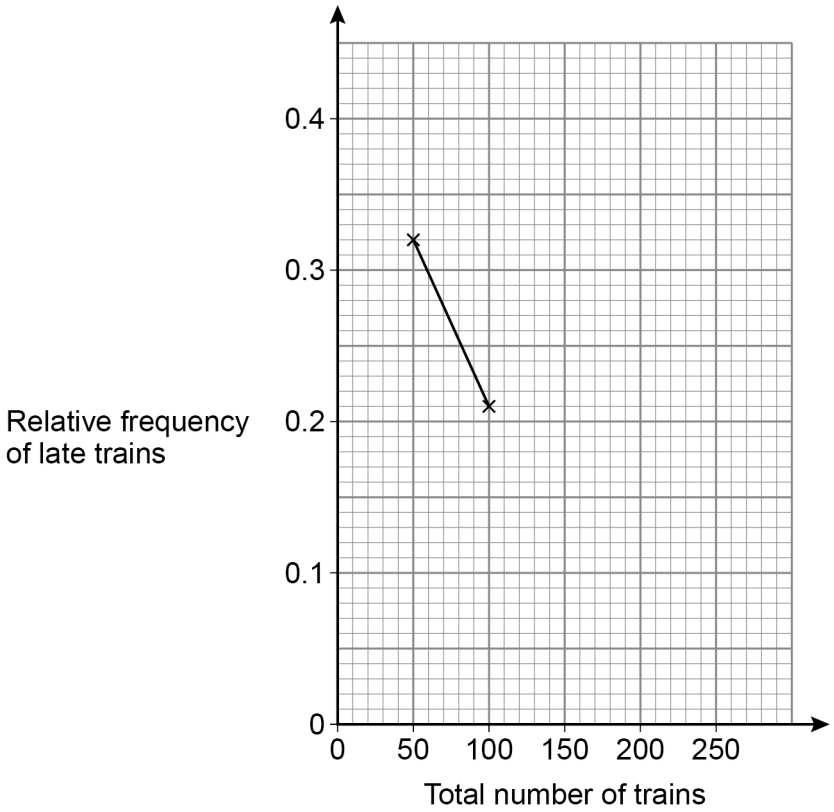
The number of trains that were late was recorded after every 50 trains.

The table shows some information about the results.

Total number of trains	50	100	150	200	250
Total number of late trains	16	21	36	38	55
Relative frequency of late trains	0.32	0.21			

1 (a) Complete the relative frequency graph.

[3 marks]



1 (b) Write down the best estimate of the probability that a train arriving at the station is late.

[1 mark]

Answer _____

2 Rosie makes phone calls to try to sell broadband.

Today, she made 120 calls.

The table shows the results.

Result of call	Frequency
Not answered	33
Answered but sale not made	81
Answered and sale made	6

2 (a) Write down the relative frequency that a call was **not answered**.

[1 mark]

Answer _____

2 (b) During the **rest of the week**, Rosie will make 500 calls.

Using the results in the table, how many sales does she expect to make during the **rest of the week**?

[2 marks]

_____

_____

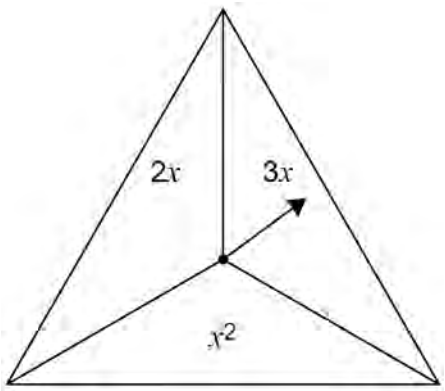
_____

_____

Answer _____

3 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.

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

[2 marks]

	1	**2**	**3**	**4**	**5**	**6**
2*x*				8		
3*x*		6				
x^2					25	

3 (b) A player wins the game if their score is 10 or more.

Work out the probability that they win the game.

[1 mark]

Answer _____

3 (c) The game is played 711 times.

Estimate the number of games that are won.

[2 marks]

Answer _____

4 Here are the results after 250 spins of a coin.

Heads	128
Tails	122

The coin is spun an extra 50 times.

After all 300 spins, the relative frequency of Heads is 0.49

For the **extra 50 spins**, work out number of Heads : number of Tails

[3 marks]

Answer _____ : _____