

**22** Here is some information about 20 trains leaving a station.

Number of minutes late, $t$	Number of trains	Midpoint	
$0 \leq t < 5$	12		
$5 \leq t < 10$	7		
$10 \leq t < 15$	1		
$t \geq 15$	0		

**22 (a)** Work out an estimate of the mean number of minutes late.

**[3 marks]**




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Answer \_\_\_\_\_ minutes



**22 (b)** The station manager looks at the information in more detail.

Number of minutes late, $t$	Number of trains
$0 \leq t < 2$	12
$2 \leq t < 4$	0
$4 \leq t < 6$	7
$6 \leq t < 8$	0
$8 \leq t < 10$	0
$10 \leq t < 12$	1

He works out an estimate of the mean using this information.

How does his estimate compare with the answer to part (a)?

Tick **one** box.

[1 mark]

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Higher than part (a)

☐

Same as part (a)

☐

Lower than part (a)

☐

Not possible to tell

