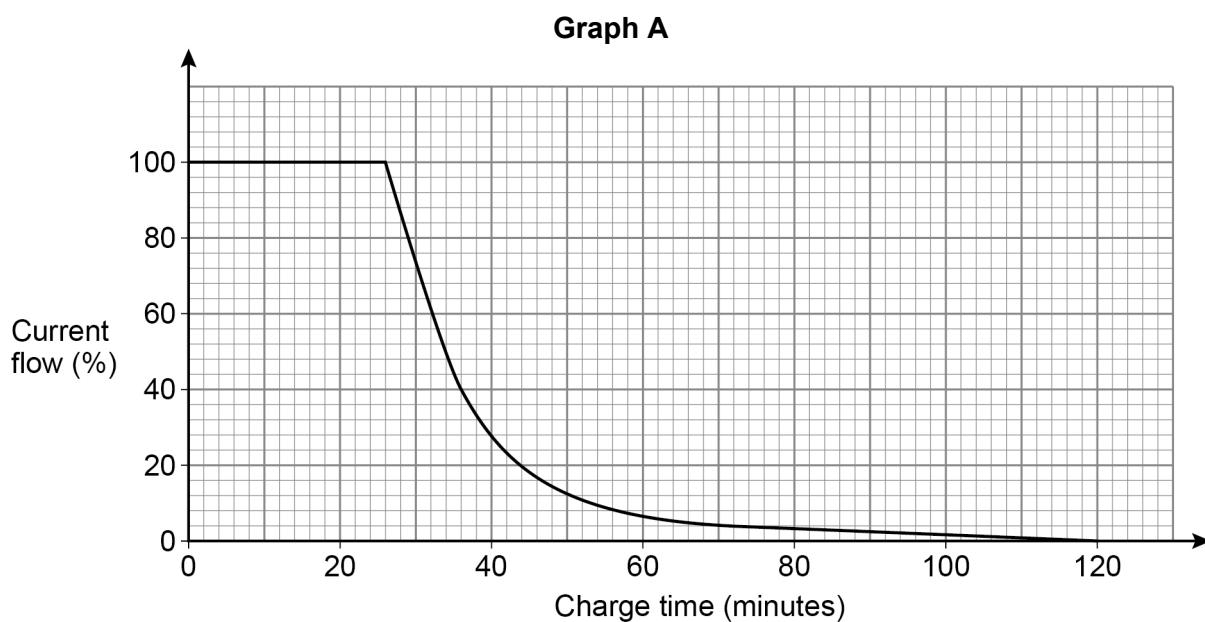


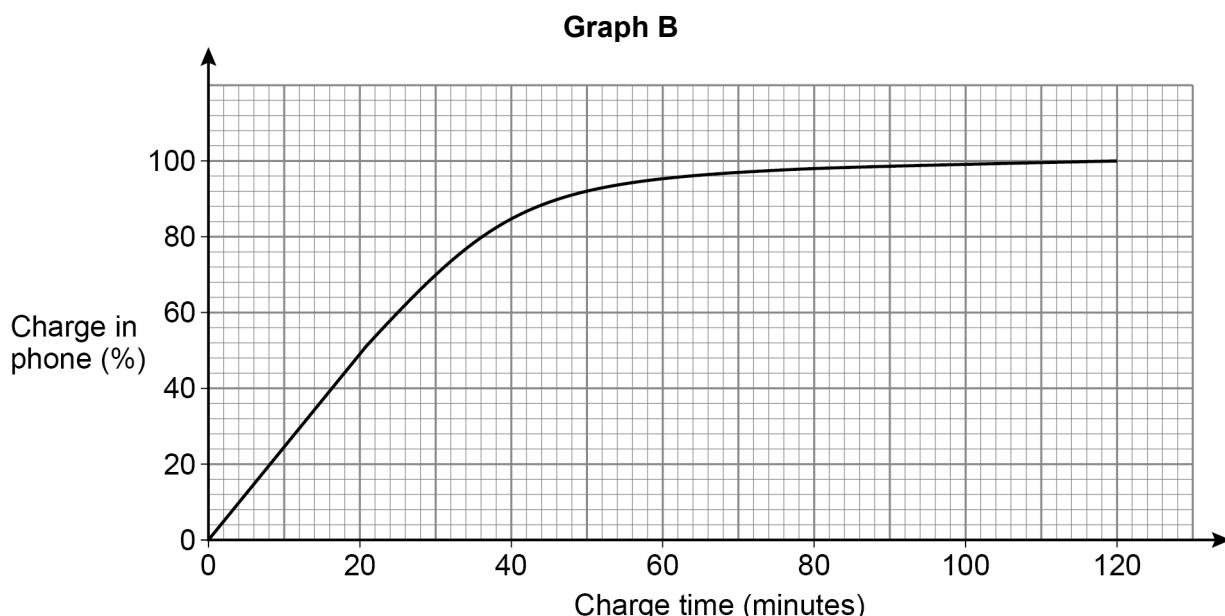
1 A mobile phone takes 2 hours to charge from empty.  
When the phone is being charged, the current flow into the phone

- starts at full current flow (100%)
- continues at full current flow for a period of time
- gradually decreases until the phone is fully charged.

This is shown on **Graph A** below.



**Graph B** shows the percentage charge in the phone when charging from empty.



Megan's phone is empty of charge.

She starts to charge her phone at 10.00 am

1 (a) Using **Graph A**,  
estimate the time when the current flow starts to decrease.

[2 marks]

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Answer \_\_\_\_\_ am

1 (b) Using **Graph A and Graph B**,  
estimate the percentage charge in the phone when the current flow is 40%

[1 mark]

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Answer \_\_\_\_\_ %

1 (c) Using **Graph B**,  
estimate the rate of increase in the percentage charge when the phone has 90% charge.

[2 marks]

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Answer \_\_\_\_\_ percent per minute

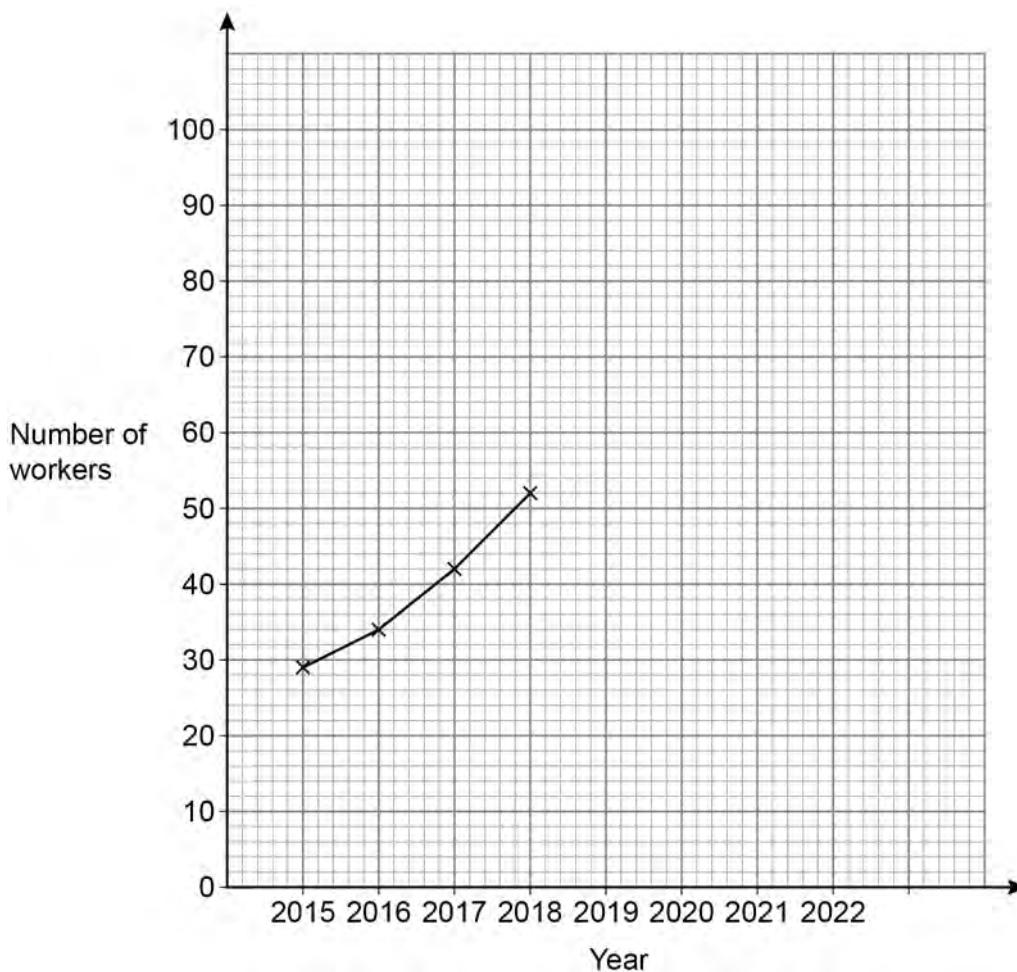
**2**

The table shows the number of workers at a company in different years.

Year	2015	2016	2017	2018	2019	2020	2021	2022
Number of workers	29	34	42	52	62	70	76	80

A time-series graph is drawn to represent the data.

The first four points have been plotted.



**2 (a)** Complete the graph.

[2 marks]

**2 (b)** Estimate the number of workers at the company in 2023

[1 mark]

Answer \_\_\_\_\_