



**GCSE Chemistry A (Gateway Science)**  
**J248/04 Chemistry A C4-C6 and C7 (Higher Tier)**

**Question Set 25**

1 Carbon dioxide is one of several greenhouse gases.

It is made by the combustion of fossil fuels such as coal, gas and oil.

Between 2010 and 2016, the total percentage increase of atmospheric carbon dioxide has been about 2.5%. During the same time, the increase in mean global temperature has been only 0.05 °C.

The table shows the amount of carbon dioxide produced in a large city in 2010 and 2016.

Source of carbon dioxide	Carbon dioxide produced (tonnes)		Percentage increase (%)
	in 2010	in 2016	
Homes	500 000	600 000	20
Factories and industry	500 000	750 000	50
Transport	1 000 000	1 000 000	0
Electricity generation	750 000	900 000	.....

(a) Look at the row for electricity generation.

Calculate the percentage increase of carbon dioxide produced.

$$\frac{900000 - 750000}{750000} \times 100 = 20\%$$

Answer = .....20..... % [2]

(b) Some scientists think there is a link between the amount of fossil fuels burnt and climate change.

The data in the table does **not** support this view. Suggest reasons why.

[2]

*There is no data in the table that refers to climate change. Data is only for one city, so is not necessarily representative of global effects.*

**Total Marks for Question Set 25: 4**