

**GCSE Chemistry A (Gateway Science)**

**J248/02 C4-C6 and C7 Foundation (Foundation Tier)**

**Question Set 7**

1 Carbon dioxide is one of several greenhouse gases.

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

The table shows the amount of carbon dioxide produced in a large city between the years 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	.....20.....

(a) Look at the row for electricity generation.

Calculate the percentage increase of carbon dioxide produced.

$$\frac{900\,000 - 750\,000}{750\,000} \times 100 = 20\%$$

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

(b) Analyse the data in the table.

What is the ratio of carbon dioxide produced from **Homes** to **Electricity generation** for 2016?

$$\begin{array}{l} 600\,000 : 900\,000 \\ | \\ 6 : 9 \\ | \\ 2 : 3 \end{array}$$

Answer = .....2..... : .....3..... [2]

(c) The population of the city increased between 2010 and 2016.

The carbon dioxide produced from transport has **not** changed between 2010 and 2016.

Suggest why the carbon dioxide production from transport has **not** changed.

Give **two** conclusions.

- more use of public transport / cycling / walking
- New cars are more efficient with less CO<sub>2</sub> being produced

[2]

**Total Marks for Question Set 7: 6**

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