

General Certificate of Secondary Education
Functional Skills Certificate
January 2009



MATHEMATICS (PILOT)
Functional Mathematics Level 2
Paper 2 (Functionality)
Data Book (Examination)

93001/2

Insert

Instructions

- This copy of the Data Book is for use in the examination. It should **not** be given to candidates in advance.

Advice

- This book will not be collected in for marking. Ensure that all working that you wish to have marked is written in the space provided in the question paper/ answer book.

Data Sheet for Environmentally Friendly Cars

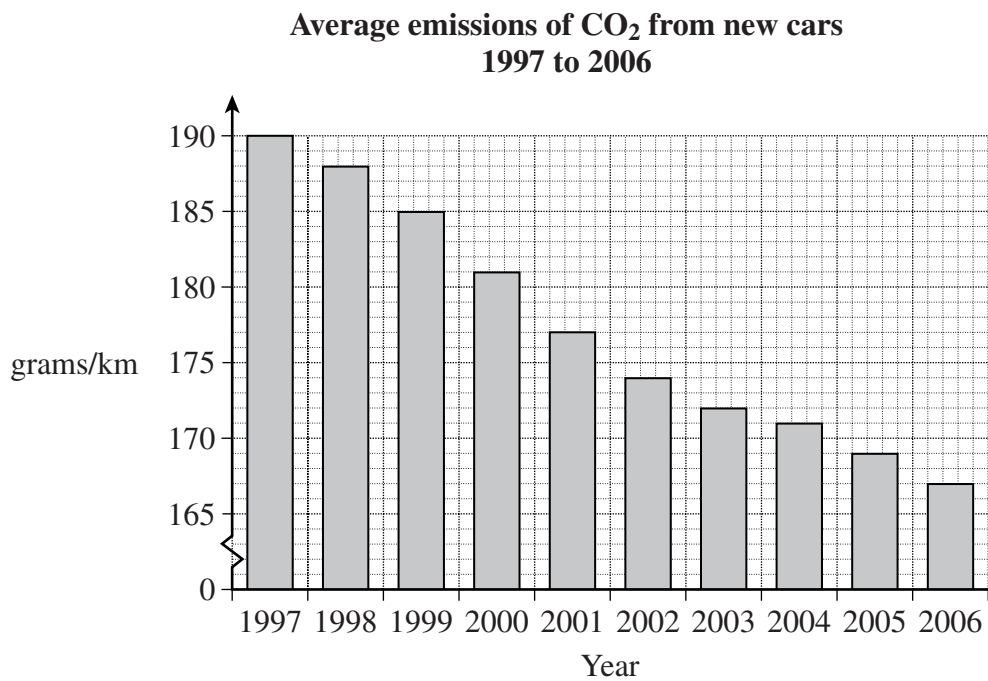
Cars emit carbon dioxide (CO₂).

This is one of the causes of climate change.

All cars are tested for the amount of carbon dioxide (CO₂) they emit.

CO₂ emissions are measured in grams per kilometre (grams/km).

Cars which have lower CO₂ emissions are more environmentally friendly.



New cars use petrol, diesel or other fuels.

Some of the other fuels are gas and electricity.

The table shows information about the new cars with the lowest CO₂ emissions in five categories.

Category	Car	Fuel	CO ₂ emissions (grams / km)
Supermini	Volkswagen Polo Blue Motion	Diesel	99
Small family	Toyota Prius Hybrid	Petrol/Electricity	104
Family	Renault New Laguna Hatch	Diesel	130
Small MPV	Ford Focus C-Max	Diesel	127
Executive	BMW 5 series E60	Diesel	136

The annual CO₂ emissions of a new car can be calculated as shown.

Example

Car	Ford Focus C-Max
Annual mileage	35 000 km
Annual CO ₂ emissions	$127 \times 35\,000 = 4\,445\,000$ grams = 4445 kilograms

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Data Sheet for London Eye



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The British Airways London Eye is a circular observation wheel situated on the bank of the River Thames.

The ride is in one of 32 high-tech glass capsules.

A ride starts when you enter a capsule at the lowest point of the wheel.

A ride is one complete revolution of the wheel.

A ride takes approximately 30 minutes.

Here are some interesting facts about the London Eye.

- It took seven years to build the London Eye.
- The London Eye was completed in 1999.
- The London Eye welcomes an average of 3.5 million customers every year. You would need 6680 jumbo jets to move the same number of people.
- Each capsule weighs 10 tonnes, the total weight of about one million pound coins.
- The circumference of the wheel is 424 metres.
- The capsules travel very slowly allowing passengers to step on and off without the wheel having to stop.
- The speed of the wheel is approximately 0.9 kilometres per hour.
- The London Eye can safely carry 25 passengers in each of its 32 capsules.

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Data Sheet for Fairtrade UK Sales

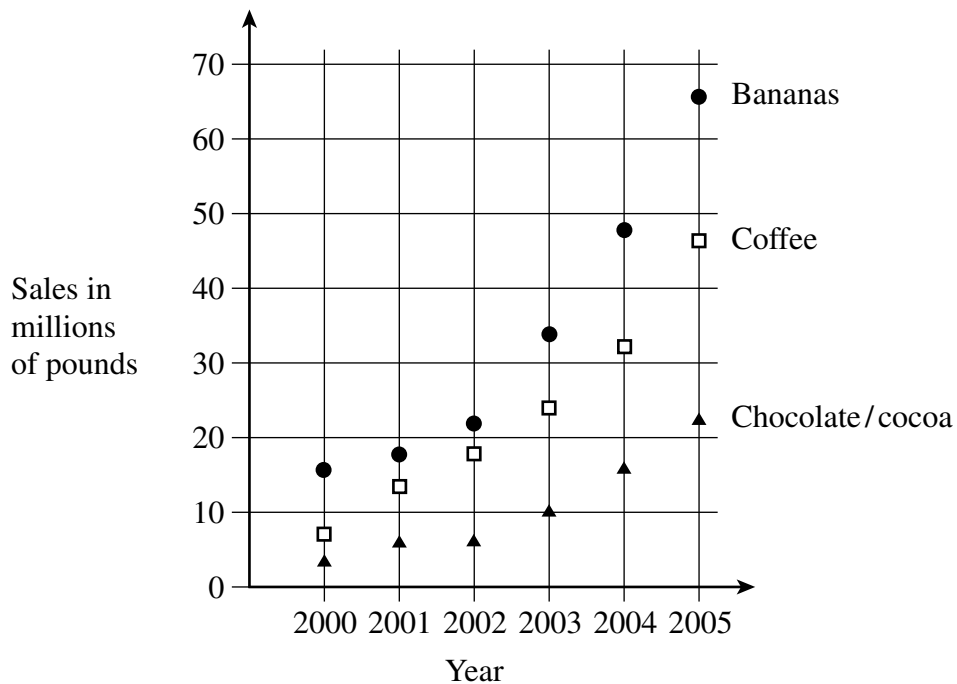


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Fairtrade helps give a 'fair' (higher) price to farmers.

This helps farmers develop their farming and escape poverty.

The graph shows how the sales of Fairtrade bananas, coffee and chocolate/cocoa have grown in recent years.



Data Sheet for Activity Holidays

Lakehouse Residential Group Prices 2008

Accommodation

Prices are per person per night.

	Mar/Apr	May/Jun	Jul/Aug	Sept/Oct
Adults	£33	£40	£38	£33
12 to 18 years	£28	£35	£33	£28
11 years and under	£27	£33	£31	£27

Activities

Prices are per person for all ages.

	Mar/Apr	May/Jun	Jul/Aug	Sept/Oct
Full Day	£23	£28	£27	£23
Half Day	£13	£18	£17	£13
Evening	£5	£10	£10	£5

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