Number
Difficulty: Medium

Question Paper 5

Level	IGCSE
Subject	Maths (0580/0980)
Exam Board	CIE
Topic	Number
Paper	Paper 4
Difficulty	Medium
Booklet	Question Paper 5

Time allowed: **77 minutes**

Score: **/67**

Percentage: **/100**

Grade Boundaries:

CIE IGCSE Maths (0580)

A*	A	B	C	D
>83%	67%	51%	41%	31%

CIE IGCSE Maths (0980)

9	8	7	6	5	4
>95%	87%	80%	69%	58%	46%

Each year a school organises a concert.

(a) (i) In 2004 the cost of organising the concert was $ 385.

In 2005 the cost was 10% less than in 2004.

Calculate the cost in 2005. [2]

(ii) The cost of $ 385 in 2004 was 10% more than the cost in 2003.

Calculate the cost in 2003. [2]

(b) (i) In 2006 the number of tickets sold was 210.

The ratio

Number of adult tickets : Number of student tickets was 23 : 19.

How many adult tickets were sold? [2]

(ii) Adult tickets were $ 2.50 each and student tickets were $ 1.50 each.

Calculate the **total** amount **received** from selling the tickets. [2]

(iii) In 2006 the cost of organising the concert was $ 410.

Calculate the percentage profit in 2006. [2]

(c) In 2007, the number of tickets sold was again 210.

Adult tickets were $ 2.60 each and student tickets were $ 1.40 each.

The total amount received from selling the 210 tickets was $ 480.

How many student tickets were sold? [4]

Maria, Carolina and Pedro receive $800 from their grandmother in the ratio

Maria: Carolina: Pedro = 7:5:4.

(a) Calculate how much money each receives. [3]

(b) Maria spends $\frac{2}{7}$ of her money and then invests the rest for two years at 5% per year simple interest.
How much money does Maria have at the end of the two years? [3]

(c) Carolina spends all of her money on a hi-fi set and two years later sells it at a loss of 20%.
How much money does Carolina have at the end of the two years? [2]

(d) Pedro spends some of his money and at the end of the two years he has $100.
Write down and simplify the ratio of the amounts of money Maria, Carolina and Pedro have at the end of the two years. [2]

(e) Pedro invests his $100 for two years at a rate of 5% per year **compound interest**.
Calculate how much money he has at the end of these two years. [2]

A Spanish family went to Scotland for a holiday.

(a) The family bought 800 pounds (£) at a rate of £1 = 1.52 euros (€).
How much did this cost in euros? [1]

(b) The family returned home with £118 and changed this back into euros.
They received €173.46.
Calculate how many euros they received for each pound. [1]

(c) A toy which costs €11.50 in Spain costs only €9.75 in Scotland.
Calculate, as a percentage of the cost in Spain, how much less it costs in Scotland. [2]

(d) The total cost of the holiday was €4347.00.
In the family there were 2 adults and 3 children.
The cost for one adult was double the cost for one child.
Calculate the cost for one child. [2]

(e) The **original** cost of the holiday was **reduced** by 10% to €4347.00.
Calculate the original cost. [2]

(f) The plane took 3 hours 15 minutes to return to Spain.
The length of this journey was 2350 km.
Calculate the average speed of the plane in

(i) kilometres per hour, [2]

(ii) metres per second. [1]

The population of Newtown is 45 000.
The population of Villeneuve is 39 000.

(a) Calculate the ratio of these populations in its simplest form. [1]

(b) In Newtown, 28% of the population are below the age of twenty.
Calculate how many people in Newtown are below the age of twenty. [2]

(c) In Villeneuve, 16 000 people are below the age of twenty.
Calculate the percentage of people in Villeneuve below the age of twenty. [2]

(d) The population of Newtown is 125% **greater** than it was fifty years ago.
Calculate the population of Newtown fifty years ago. [2]

(e) The two towns are combined and made into one city called Monocity.
In Monocity the ratio of
men : women :children is 12 : 13 : 5.
Calculate the number of children in Monocity. [2]

(a) The technical data of a car includes the following information.

Type of road	Petrol used per 100 km
Main roads	9.2 litres
Other roads	8.0 litres

(i) How much petrol is used on a journey of 350 km on a main road? [1]

(ii) On other roads, how far can the car travel on 44 litres of petrol? [1]

(iii) A journey consists of 200 km on a main road and 160 km on other roads.

(a) How much petrol is used? [2]

(b) Work out the amount of petrol used per 100 km of this journey. [1]

(b) A model of a car has a scale of 1 : 25.

(i) The length of the car is 3.95 m.
Calculate the length of the model.
Give your answer in centimetres. [3]

(ii) The painted surface area of the model is 128 cm^2.
Calculate the painted surface area of the car, giving your answer in square centimetres. [2]

(iii) The size of the luggage space of the car is 250 litres.
Calculate the size of the luggage space of the model, giving your answer in millilitres. [3]

(a) At an athletics meeting, Ben's time for the 10 000 metres race was 33 minutes exactly and he finished at 15 17.

(i) At what time did the race start? [1]

(ii) What was Ben's average speed for the race? Give your answer in kilometres per hour. [2]

(iii) The winner finished 51.2 seconds ahead of Ben.
How long did the winner take to run the 10 000 metres? [1]

(b) The winning distance in the javelin competition was 80 metres.
Otto's throw was 95% of the winning distance.
Calculate the distance of Otto's throw. [2]

(c) Pamela won the long jump competition with a jump of 6.16 metres.
This was 10% further than Mona's jump.
How far did Mona jump? [2]