Foundation Paper 1 2003

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Graduate Bsc (Hons) MathsSci (Open) GIMA

1)a. Given 17.9 + 5.2

$$\begin{array}{r} 17.9 \\ +\ 5.2 \\ \hline 23.1 \end{array}$$

b. Given 3.21 x 7

$$\begin{array}{r} 3.21 \\ \times\ \ 7 \\ \hline 22.47 \end{array}$$

c. 58.4÷10

Simply move point 1 place to the left.

5.84

2. Given 20% of £340

Step 1 : Convert 20% to a fraction $\frac{20}{100} = \frac{1}{5}$

Step 2 : Write £'s to 2 decimal places

$\frac{1}{5}$ of £340.00

$$5\overline{)3^{3}4^{4}0.00} \quad \begin{array}{l} 6\ 8.00 \end{array}$$

= £68.00 or £68

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3. Given the film start at 8.00 to 9.00 and then 9.25 to 11.10 we can work out the time the film last altogether:

8.00 $\rightarrow$ 9.00 (1 hr)
9.25 $\rightarrow$ 10.00 (35 mins)
10.00 $\rightarrow$ 11.00 (1 hr)
11.10 $\rightarrow$ 11.10 (10 mins)

Total time is 2 hrs 45mins

4.a Given the speedometer display the speed is (reading from display) 85mph.

b. If a train travels for 3 hours at the speed in part (a) above. Then the distance travelled will be:

Distance = speed $\times$ time

$$\begin{array}{r} 85 \\ \times\ 3 \\ \hline 255 \\ \hline 1 \end{array}$$

Distance travelled is 255 miles

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5.a Given the table of cities and their temperatures:

Paris	Madrid	Montreal	Moscow	New York
4	9	-6	-2	0

The city with the lowest temperature is Montreal.

5. b When the temperature drops by 3 degrees in Moscow the new temperature will be:

$$-2 - 3 = -5 \text{ degrees}$$

6. If Colin's gross pay is £1980 and his deductions are £509. Then his net pay will be:

$$\begin{array}{r} 1\,9^{7}8^{1}0 \\ -\ 5\,0\ 9 \\ \hline £\ 1\,4\,7\,1 \end{array}$$

7a. Given the rule we can complete the number cells.

7	**11**	**18**	**29**

b.

5	**8**	**13**	**21**

c.

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1	9	10	19

8. Given the table of bills.

	Amount
Spring	£68
Summer	£50
Autumn	£73
Winter	
Total	£336

To calculate the winter bill we add up the Spring, Summer and Autumn bills and take this total away from the total bill.

$$\begin{array}{r} £\ 68 \\ £\ 50 \\ +£\ 73 \\ \hline £\ 1\ 91 \\ \hline 1\ 1 \end{array}$$

$$\begin{array}{r} £^{2}3^{1}3\ 6 \\ -\ £1\ 9\ 1 \\ \hline £1\ 4\ 5 \end{array}$$

Winter bill is £145

b. The mean amount for the bills is:

Add up the total for all the bills £336

Divide by the number of bills

$4\overline{)336}$ 84 The mean bill is £84