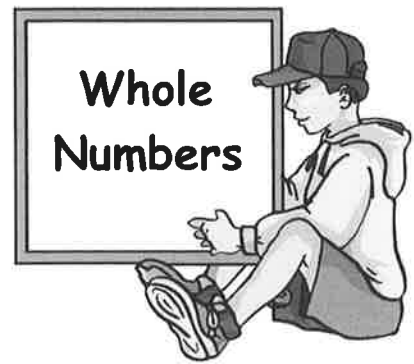


CHAPTER 2



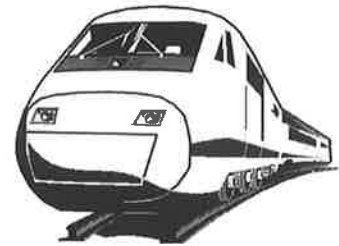
Exercise 1a

Add, Subtract,
Multiply & Divide.



1. a A train arrives at a station with 236 people on board.
At the station 108 people get on and 171 people get off.
How many people are on the train now ?


- b The next train to arrive at the station has 6 carriages
Each carriage has 123 people.
Four hundred and sixteen people get off the train.
How many people are now on the train ?



2. a Eve has 6 photo albums. There are 224 photos in each album.
How many photos does Eve have in total ?

- b Pia has 1561 stamps in her collection.
She has seven identical full stamp books.
How many stamps are in each book ?




3. a  How many hours are there in 6300 minutes ?
b There are 24 hours in a day. How many hours are in one week ?
c How many minutes are there in 64 800 seconds ?

4. Ellis bought the following at the supermarket :-

4 kg of potatoes at £1.05/kg, 2 kg of mince at £2.85/kg
1.5 kg of cheese at £2.60/kg 350 g of green beans at 45p/50g.

What was his total bill in the supermarket ?

5.  Four packs of sandwiches and five drinks costs £10.60.
If one drink costs 80p, how much is each sandwich ?

6. (Difficult). A Shirt costs £22 and a pair of trousers costs £27.
Brad spends £191 on shirts and trousers.

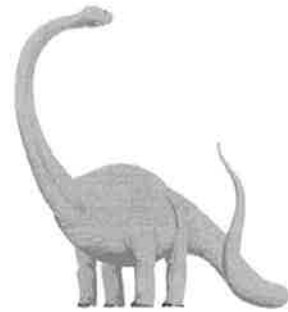
How many shirts and how many trousers did he buy ?




Exercise 1b



1. Entry to the museum is £7.80 per adult and children enter at half price.
- a How much would it cost for 6 teachers and 28 pupils?
A special school rate pass costs £120.
- b How much of a saving would this be for the group above?



2.  A box of eighteen blank DVD's cost £2.28.
A box of 24 costs £2.85.
Which is the better deal? Explain.

3. Rita buys 40 litres of *Ultimate A* grade petrol costing £59.60.
It costs Reena £84.15 for 55 litres of *Ultimate A* grade petrol.



- a Who found the cheaper petrol station?
- b How much had she saved by not going to the dearer station?
4. Ali gets paid a total of £560.25 for 45 hours work.
Gene works 37 hours and is paid £624.19.
- a Calculate how much Ali gets paid per hour.
- b How much **more** per hour does Gene earn than Ali?



5. Six students are to pay £1860 for a private holiday villa in Spain.
- a How much will each student have to pay?
One of the students could not go.
The group still have to pay £1860.
- b How much **more** does each student have to pay?



6. Gary paid a total of £14 640 for his new car.
He paid a deposit of three thousand pounds and 24 equal monthly instalments.



- a How much was each instalment?
- b (Difficult). What was each instalment as a percentage of the total cost?

Exercise 2

Mental Exercise



1. Do each calculation **mentally** then write down the answer :-

- | | | | | | | | |
|---|--------------|---|--------------|---|--------------|---|------------------|
| a | $27 + 84$ | b | $142 + 48$ | c | $234 + 187$ | d | $1300 + 8700$ |
| e | $1435 + 75$ | f | $3210 + 250$ | g | $540 + 890$ | h | $12\,500 + 7500$ |
| i | $72 - 55$ | j | $130 - 60$ | k | $320 - 145$ | l | $1200 - 750$ |
| m | $7200 - 550$ | n | $863 - 210$ | o | $1270 - 860$ | p | $12\,395 - 7195$ |

2. Find mentally :-

- | | | | | | | | |
|---|---------------|---|----------------|---|-----------------|---|--------------------|
| a | 52×5 | b | 121×4 | c | 31×6 | d | 75×7 |
| e | $88 \div 4$ | f | $96 \div 3$ | g | $126 \div 3$ | h | $5555 \div 5$ |
| i | 64×5 | j | 183×4 | k | 1200×8 | l | $10\,400 \times 9$ |
| m | $146 \div 2$ | n | $3015 \div 3$ | o | $4385 \div 5$ | p | $2520 \div 9$ |

3. a Jay buys 6 new cars priced at £11 200 each for his sales team.

How much did the cars cost in total ?

b Jay pays £2040 insurance per annum for all the cars.

How much is the insurance for each car ?

c Four of the six cars have a £225.00 alarm fitted.

What is the total cost for the alarms ?



Exercise 3

Multiples of 10,100, ...



1. Find **without** a calculator :-

- | | | | | | | | |
|---|----------------------|---|------------------|---|----------------------|---|--------------------|
| a | 34×20 | b | 30×46 | c | 312×30 | d | 103×80 |
| e | 235×200 | f | 262×300 | g | 541×700 | h | 4444×500 |
| i | 132×3000 | j | 18×4000 | k | 304×8000 | l | 3105×9000 |
| m | $14\,600 \times 200$ | n | 600×300 | o | $12\,000 \times 500$ | p | $0 \times 60\,000$ |

2. Find **without** a calculator :-

- | | | | | | | | |
|---|----------------------|---|----------------------|---|----------------------|---|---------------------|
| a | $460 \div 20$ | b | $3060 \div 30$ | c | $8400 \div 40$ | d | $64\,800 \div 80$ |
| e | $6000 \div 200$ | f | $90\,000 \div 300$ | g | $71\,400 \div 700$ | h | $350\,000 \div 500$ |
| i | $96\,000 \div 3000$ | j | $560\,000 \div 4000$ | k | $568\,000 \div 8000$ | | |
| l | $9819\,000 \div 900$ | m | $64\,200 \div 200$ | n | $150\,000 \div 2000$ | | |

3. A local football team has a total weekly wage of £8600 for twenty players.
- If all players receive equal pay, how much does each player earn weekly?
 - Each player carries a £145 insurance policy.
What is the total player insurance cost?

4. a There are 500 tickets in a book, six hundred books in a box and 200 boxes in a crate.
How many tickets are in a crate?

- b A juggernaut carries a total of one hundred thousand bottles of juice in 10 palettes.
Each palette holds 20 containers.
Each container holds 50 boxes.
How many bottles are in a box?



Exercise 4

BOMDAS



1. Use Bomdas to find :-

- | | | | | | | | |
|---|---------------------------|---|-----------------------------|---|--|---|--------------------|
| a | $3 + 2 \times 4$ | b | $5 + 2 \times 6$ | c | $12 + 10 \times 4$ | d | $10 \times 4 + 5$ |
| e | $12 - 4 \times 2$ | f | $26 - 3 \times 8$ | g | $15 - 2 \times 7$ | h | $20 \times 3 - 60$ |
| i | $\frac{1}{2}$ of $10 + 6$ | j | $18 + \frac{1}{2}$ of 6 | k | $16 - \frac{1}{3}$ of 15 | l | half of $20 + 4$ |
| m | $2 \times (5 + 6)$ | n | $\frac{1}{8}$ of $(12 - 4)$ | o | $((6 \div 2) + 8) \times 3 - (11 - 3)$. | | |

2. Copy each of the following and insert brackets to make each calculation correct :-

- | | | | | | |
|---|---------------------------------|---|------------------------------|---|--------------------------------|
| a | $10 + 5 \times 2 = 30$ | b | $15 - 6 \times 3 = 27$ | c | $\frac{1}{8}$ of $16 + 32 = 6$ |
| d | $10 \times 5 - 2 \times 3 = 90$ | e | $16 \div 2 + 6 \times 3 = 6$ | f | $8 + 2 \times 3 - 2 = 10$. |

Revisit - Review - Revise Exercise 2a



1. Four gas meter readings are found to be :- 2143, 5670, 1098 and 3432 units.
- What is the total of all four meters?
 - Find the difference between the largest and smallest reading.
2. a Ryan made £240 profit selling ten T-shirts.
How much profit did he make on each T-shirt?



2. b Ashley packs 1420 T-Shirts into packs of 6.

How many packs are there and how many T-Shirts will be left ?



3. Find :-

- a 34×20 b 412×500 c 804×600 d 121×9000
 e $25000 \div 500$ f $81000 \div 90$ g $165000 \div 3000$ h $1260000 \div 7000$.

4. Alice and her two daughters, Ann, aged 5 and Bonnie, buy tickets for the cinema.

Bonnie is a student and gets a concession.

Will they be cheaper with the family deal ?

Explain.

CINE-TIME PRICES	
Adult	£5.60
Child	£3.50
Concession	£2.75
Family (2 adults + 2 children)	£12.50

5. Calculate :-

- a $4 + 7 \times 3$ b $11 - 3 \times 2$ c $20 \div (4 + 1)$ d $3 \times (2 + 13) \div 5$.

Revisit - Review - Revise Exercise 2b



1. How many days in total were there in the years 2010, 2011 and 2012 ?
 2. I have £5 in 10p and 5p pieces. I have twice as many 10p than 5p pieces.
 How many 5p pieces do I have ?

3. A motorcycle can be bought for £11 200 cash or by making a 10% deposit, **plus** thirty six monthly payments of £310.

- a How much would you save if you paid cash ?
 b Explain why most people would not choose cash payment.



4. Fifteen thousand sweets are put equally into bags of 34 sweets.

- a How many bags are needed ?
 b How many sweets are left over ?



5. 4 identical rectangles and 3 identical squares have a total area of 96 cm^2 .

2 rectangles and 1 square have a total area of 42 cm^2 .

Find the area of both a rectangle and a square.

