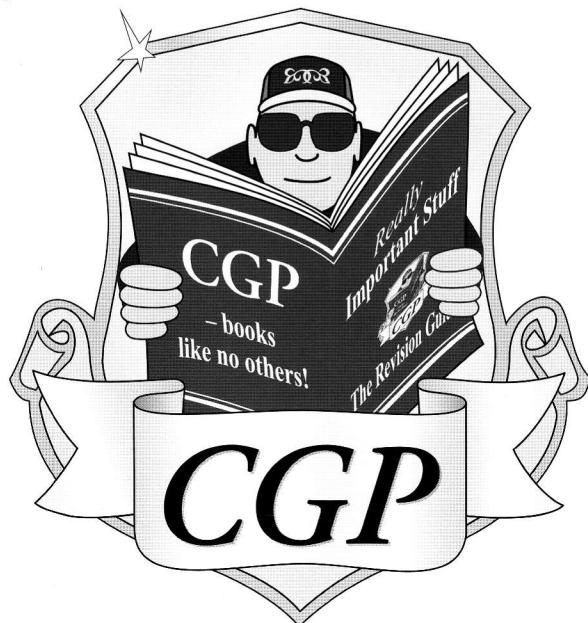


Name: OLIVER HOARE

Class: .....

# Key Stage Two Maths



# Workout Year 3

# Contents

<b>Counting and Numbers.....</b>	<b>1 – 2</b>
<b>Place Value and Ordering.....</b>	<b>3 – 5</b>
<b>Scales.....</b>	<b>6 – 7</b>
<b>Adding .....</b>	<b>8 – 10</b>
<b>Subtracting .....</b>	<b>11 – 13</b>
<b>Multiplying.....</b>	<b>14 – 16</b>
<b>Dividing .....</b>	<b>17 – 19</b>
<b>Estimating and Inverses .....</b>	<b>20 – 21</b>
<b>Fractions .....</b>	<b>22 – 24</b>
<b>Fraction Calculations .....</b>	<b>25 – 26</b>
<b>Measuring Problems .....</b>	<b>27 – 28</b>
<b>Money Problems .....</b>	<b>29 – 31</b>
<b>Time Problems.....</b>	<b>32 – 33</b>
<b>Shape .....</b>	<b>34 – 36</b>
<b>Using Data.....</b>	<b>37 – 40</b>
<b>Answers .....</b>	<b>41 – 44</b>

Published by CGP

Written by William Hartley

*Editors:*

Katherine Craig, Sophie Scott

ISBN: 978 1 84146 069 7

*With thanks to Camilla Simson and Alison Griffin for the proofreading.  
Also thanks to Jan Greenway for the copyright research.*

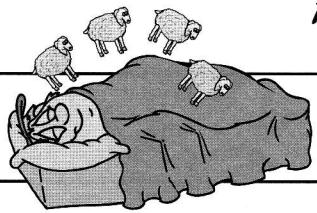
Printed by Elanders Ltd, Newcastle upon Tyne.  
Clipart from Corel®

Based on the classic CGP style created by Richard Parsons.

Text, design, layout and original illustrations © Coordination Group Publications Ltd. (CGP) 2014  
All rights reserved.

Photocopying this book is not permitted, even if you have a CLA licence.  
Extra copies are available from CGP with next day delivery • 0800 1712 712 • [www.cgpbooks.co.uk](http://www.cgpbooks.co.uk)

# Counting and Numbers



1. Next to each number write its name.

a 47

.....

e 51

.....

b 73

.....

f 134

.....

c 69

.....

g 395

.....

d 82

.....

h 826

.....

2. Write these numbers as numerals.

a three hundred and sixty .....

b five hundred and two .....

c eight hundred and fifty .....

d one thousand .....



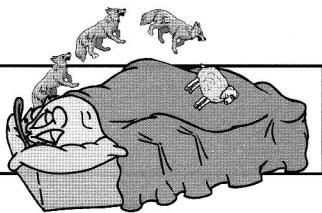
3. Write the five numbers that come just before and just after 503 in order on the number track below.

					503				
--	--	--	--	--	-----	--	--	--	--

4. Jake has four apples. He is given another seven.

Write how many apples Jake has now in words.

.....



# Counting and Numbers

1. Give the numbers which come nine before and six after each of these numbers.

a 15 .....

d 91 .....

b 64 .....

e 27 .....

c 43 .....

f 106 .....

2. Count up from 0 in...



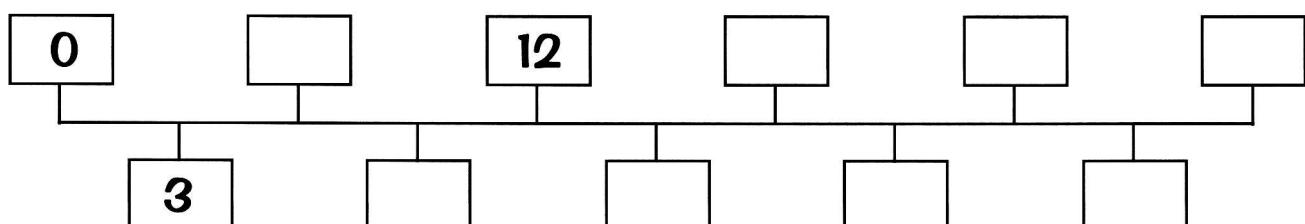
a ...4s 0 | | | | | | | | |

b ...8s 0 | | | | | | | | |

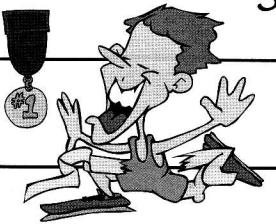
c ...50s 0 | | | | | | | | |

d ...100s 0 | | | | | | | | |

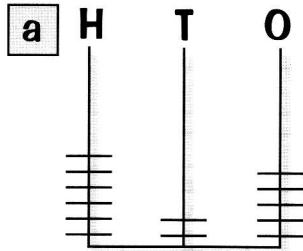
3. Complete this number line.



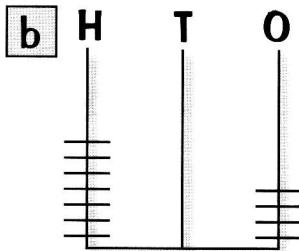
# Place Value and Ordering



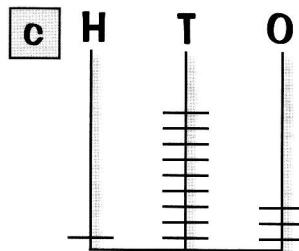
1. What number does each abacus show?



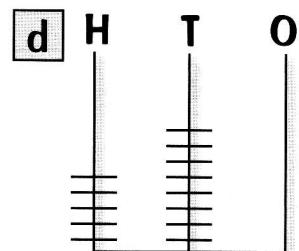
625 .....



.....



.....



.....

2. How many does the digit 4 stand for in:

a 456? .....

c 749? .....

b 24? .....

d 41? .....

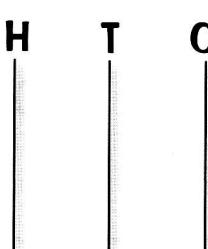
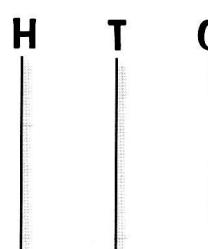
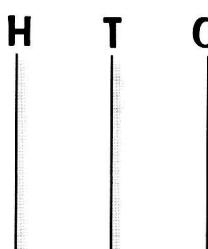
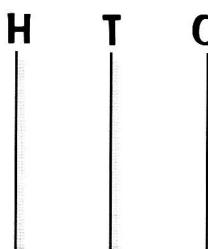
3. Mark each of these numbers on the abacus below it.

a 582

b 904

c 36

d 477



4. Which digit is in the ones place of each number?

a 521 .....

b 86 .....

c 109 .....

# Place Value and Ordering



1. Write down the largest and then the smallest number you can make using the digits below.

a 2 3 1    **321**    123

d 4 3 5       

b 6 2 7       

e 8 1 9       

c 7 5 9       

f 8 4 8       

2. Write the correct numbers in the boxes.

a  $6972 = 6000 + 900 + 70 + \boxed{\phantom{0}}$

b  $7340 = 7000 + 300 + \boxed{\phantom{0}}$

c  $4000 + \boxed{\phantom{0}} + 8 = 4808$

d  $8159 = \boxed{\phantom{0}} + 100 + 50 + 9$

e  $5000 + 200 + \boxed{\phantom{0}} + 1 = 5231$

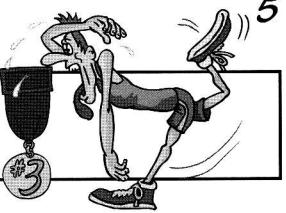


3. Arrange these numbers in order in the boxes.

131    201    231    321    123    302    102    312    213

Lowest

Highest



## Place Value and Ordering

1. Choose numbers to fill the empty boxes so that there are eight numbers in order.

a 98        112        160            163

b 500            425    350            348   

2. Put these numbers in order.

546    456    654    506    645    405    465    564    605

Highest

Lowest

3. Put < or > in the boxes below to show which number is bigger in each pair.

a 621  612

c 739  937

b 15  51

d 111  101

4. Write down the digit in the tens place of each number.

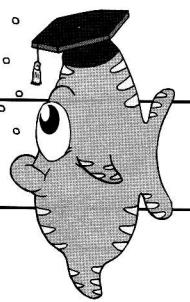
a 19 .....

c 496 .....

b 305 .....

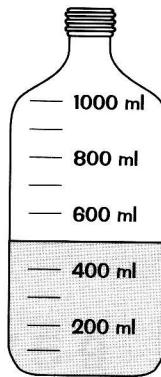
d 781 .....

# Scales

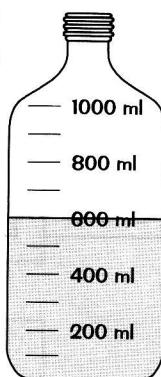


**1. How much liquid is in each bottle?**

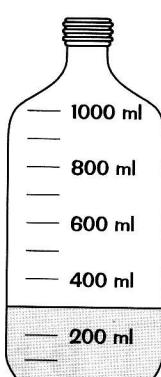
a



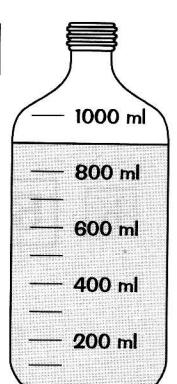
b



c



d

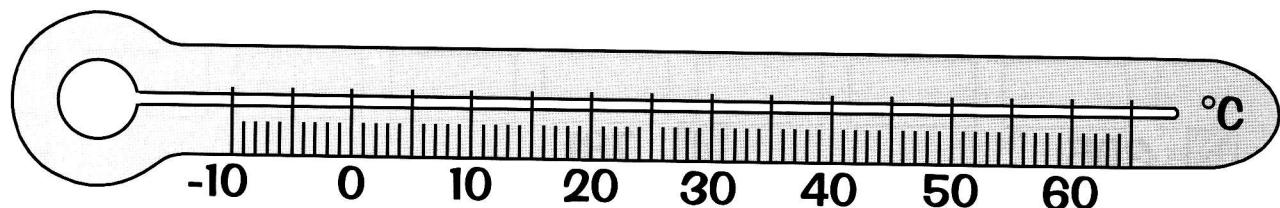


**500 ml**

**2. How much does the dog weigh?**



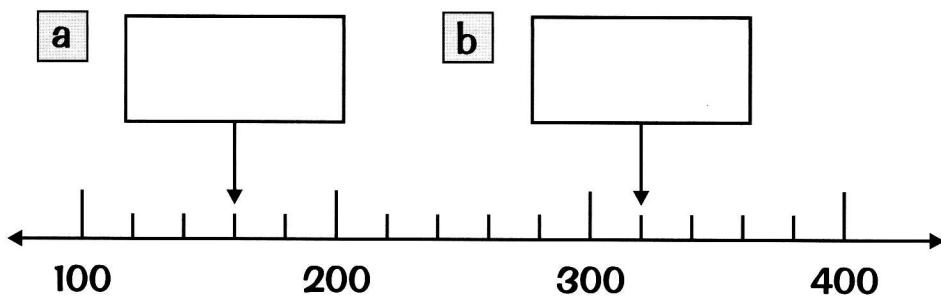
**3. Paula's bath is 34 °C.  
Mark this temperature on the thermometer below.**



## *Scales*



1. Look at the number line below.  
Write the correct numbers in the boxes.

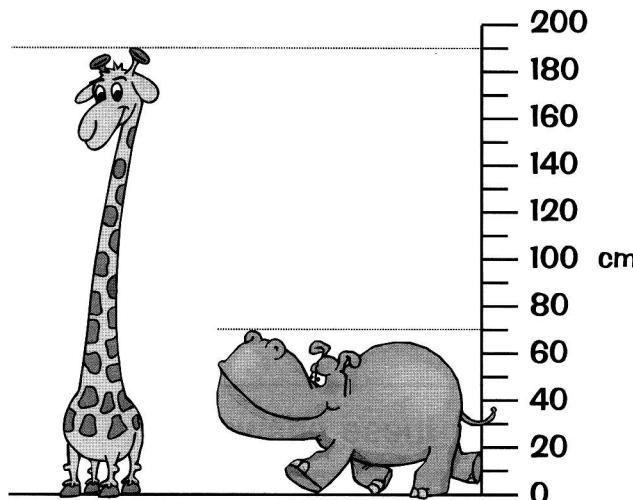


## 2. How tall is:

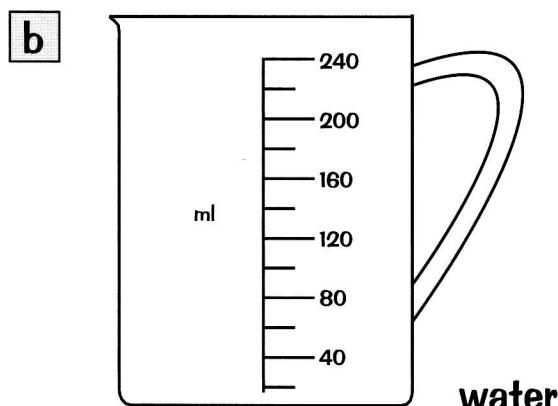
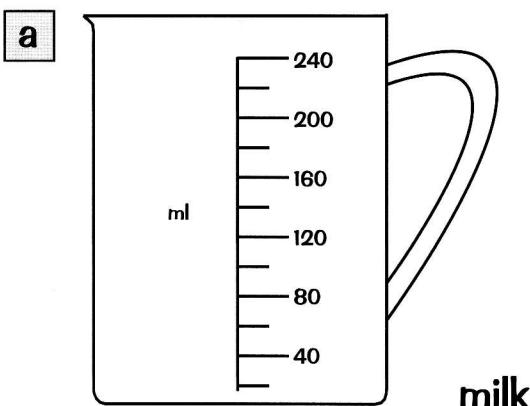
## a Geraldine the Giraffe?

.....

# b Humphrey the Hippo?



3. Joe needs 120 ml of milk and 60 ml of water to make a cake.  
Draw the amount of milk and water that he'll need in the jugs below.



# Adding



**1.** Give the numbers that are ten more than these numbers.

a 472 .....

c 659 .....

e 700 .....

b 398 .....

d 510 .....

f 803 .....

**2.** Give the numbers that are one hundred more than these numbers.

a 900 .....

c 96 .....

e 667 .....

b 528 .....

d 21 .....

f 3 .....

**3.** Work out these answers.

$$\begin{array}{r} \boxed{a} \quad 24 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{b} \quad 29 \\ + 58 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{c} \quad 33 \\ + 39 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{d} \quad 28 \\ + 63 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{e} \quad 45 \\ + 37 \\ \hline \end{array}$$

**4.** Try these more difficult sums.

$$\begin{array}{r} \boxed{a} \quad 641 \\ + 232 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{b} \quad 217 \\ + 768 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{c} \quad 497 \\ + 196 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{d} \quad 328 \\ + 296 \\ \hline \end{array}$$

# Adding



**1.** Give the numbers that are ten more than these numbers.

a 472 .....

c 659 .....

e 700 .....

b 398 .....

d 510 .....

f 803 .....

**2.** Give the numbers that are one hundred more than these numbers.

a 900 .....

c 96 .....

e 667 .....

b 528 .....

d 21 .....

f 3 .....

**3.** Work out these answers.

$$\begin{array}{r} \text{a} \quad 24 \\ + 23 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b} \quad 29 \\ + 58 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c} \quad 33 \\ + 39 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d} \quad 28 \\ + 63 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e} \quad 45 \\ + 37 \\ \hline \end{array}$$

**4.** Try these more difficult sums.

$$\begin{array}{r} \text{a} \quad 641 \\ + 232 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b} \quad 217 \\ + 768 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c} \quad 497 \\ + 196 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d} \quad 328 \\ + 296 \\ \hline \end{array}$$

# Adding



## 1. Complete these addition tables.

a	+	25	37	48
		29	54	
		35	72	
		43		91

b	+	52	65	78
		59		
		67		132
		73	125	

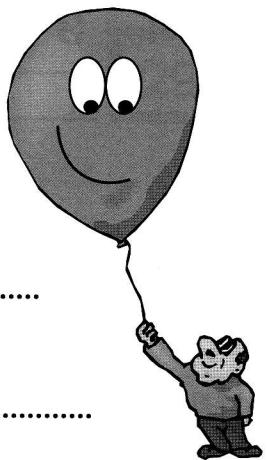
## 2. Complete the sums below by writing the answers as numerals.

a forty-seven + nine .....

b thirty-three + ten .....

c one hundred and two + twenty-one .....

d one hundred and seventy-two + thirty .....



## 3. Fill in the gaps to make these sums correct.

a ..... + 7 = 15

c 663 + ..... = 863

b 13 + ..... = 40

d ..... + 90 = 296

## 4. Add together these pairs of numbers.

a 17 13 .....

b 14 12 .....

# Adding



- 1.** Write ten different pairs of two-digit numbers which total 100.  
One has been done for you already.

36	64





- 2.** Work out these answers.

$$\begin{array}{r} \boxed{a} \quad 526 \\ + \quad 352 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{b} \quad 431 \\ + \quad 245 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{c} \quad 547 \\ + \quad 228 \\ \hline \end{array}$$

$$\begin{array}{r} \boxed{d} \quad 358 \\ + \quad 318 \\ \hline \end{array}$$

- 3.** Complete the sums below.

$$\boxed{a} \quad 117 + 4 = \dots$$

$$\boxed{d} \quad 117 + \dots = 217$$

$$\boxed{b} \quad 117 + 40 = \dots$$

$$\boxed{e} \quad 117 + \dots = 127$$

$$\boxed{c} \quad 117 + 400 = \dots$$



- 4.** Complete these addition tables.

a	+	47	69	86
54	101			
75		144		
98			184	

b	+	124	138	149
101				250
132		270		
145	269			



# *Subtracting*

1. Give the numbers that are ten less than these numbers.

a 472 .....

c 659 .....

e 700 .....

b 398 .....

d 510 .....

f 803 .....

2. Circle the number that is 9 less than 45.

34

27

44

36

37

29

3. What is one hundred less than...

a ...three hundred? .....

b ...six hundred and thirty-five? .....

c ...one hundred and forty-seven? .....

4. Complete the subtractions below.

a  $678 - 3 =$  .....

d  $500 - 4 =$  .....

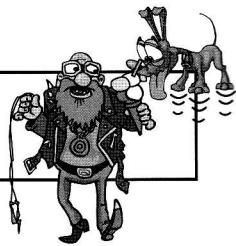
b  $678 - 30 =$  .....

e  $500 - 40 =$  .....

c  $678 - 300 =$  .....

f  $500 - 400 =$  .....

# Subtracting



## 1. Complete these calculations.

a  - 600 = 300

b 800 -  = 600

## 2. Do these word problems. Write your answers as numerals.

a Take nine from fourteen. ....

b Eighty-three subtract fifty. ....

c Subtract ten from forty-six. ....

d Sixteen take away seven. ....



## 3. Solve these problems. Write your answers in words.

a What is the difference between 85 and 35? ....

b How many more than 6 is 69? ....

## 4. Work out these answers.

a 
$$\begin{array}{r} 69 \\ - 35 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 70 \\ - 29 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 78 \\ - 39 \\ \hline \end{array}$$

d 
$$\begin{array}{r} 53 \\ - 26 \\ \hline \end{array}$$

e 
$$\begin{array}{r} 85 \\ - 49 \\ \hline \end{array}$$



# Subtracting

1. Complete these subtraction tables.

a	-	51	65	79
23	28			
35		30		
48			31	

b	-	110	130	150
84				66
72			58	
46	64			

2. Complete the subtractions below.

a  $126 - \underline{\hspace{2cm}} = 26$

d  $\underline{\hspace{2cm}} - 18 = 101$

b  $14 - \underline{\hspace{2cm}} = 8$

e  $\underline{\hspace{2cm}} - 22 = 22$

c  $86 - \underline{\hspace{2cm}} = 12$

f  $\underline{\hspace{2cm}} - 201 = 77$

3. Give five sets of numbers under 100 that have a difference of 14.  
One has been done for you already.

19    33

4. Try these subtractions.

a  $987$   
 $- 542$   
 $\underline{\hspace{2cm}}$

b  $850$   
 $- 432$   
 $\underline{\hspace{2cm}}$

c  $691$   
 $- 513$   
 $\underline{\hspace{2cm}}$

d  $458$   
 $- 372$   
 $\underline{\hspace{2cm}}$

# Multiplying



**1. Complete the multiplications below.**

a  $2 \times 8 =$  .....

d  $4 \times 3 =$  .....

b  $12 \times 3 =$  .....

e  $7 \times 10 =$  .....

c  $5 \times 5 =$  .....

f  $6 \times 8 =$  .....

**2. Shade in the numbers that are in the three times table.**

30

12

19

23

21

11

6

17

24

26

9

14

18

36

29

15

**3. Draw lines to match the numbers on the left with the number on the right that is twice as large.**

2

16

8

10

1

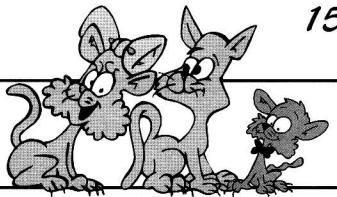
4

5

2



# Multiplying



1. Complete this multiplication chart.

$\times$	4	9	1	6	0	5	3	8	10	2	7
4				24					40		
8	32										56
10		90					30				

2. Complete the multiplications below.

a  $4 \times \text{.....} = 12$

e  $3 \times \text{.....} = 21$

b  $\text{.....} \times 8 = 32$

f  $10 \times 3 = \text{.....}$

c  $\text{.....} \times 2 = 20$

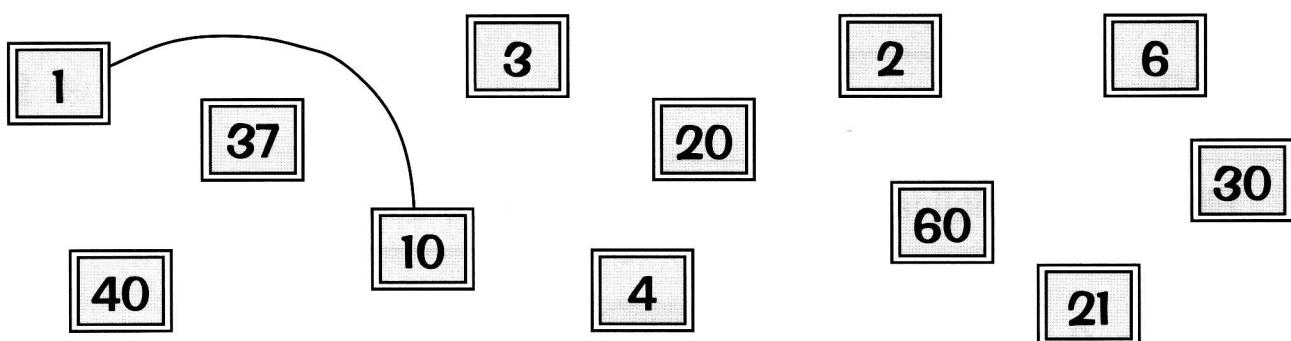
g  $5 \times 5 = \text{.....}$

d  $4 \times \text{.....} = 16$

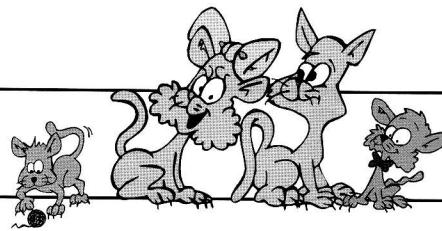
h  $5 \times \text{.....} = 40$



3. Join each one-digit number to a number 10 times its size.



# Multiplying



1. Do these word problems. Write your answers in words.

a Multiply four by twelve.

.....

b Make eight five times larger.

.....

c Two multiplied by three.

.....

d Multiply four by seven.

.....

e Make five six times larger.

.....

2. Answer these multiplications in the space below.

$$\begin{array}{r} \text{a} \quad 31 \\ \times \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b} \quad 22 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c} \quad 57 \\ \times \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d} \quad 62 \\ \times \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e} \quad 14 \\ \times \quad 8 \\ \hline \end{array}$$

3. What numbers will come out of the number machines below?

$$\begin{array}{l} \text{a} \quad 8 \rightarrow \boxed{\text{multiply by 7}} \rightarrow \dots \end{array}$$



$$\begin{array}{l} \text{b} \quad 2 \rightarrow \boxed{\text{multiply by 4}} \rightarrow \dots \rightarrow \boxed{\text{multiply by 11}} \rightarrow \dots \end{array}$$

4. Fill in the multiplication fact for this addition sum.

$$4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 =$$

$$\boxed{\quad} \times \boxed{\quad} = \boxed{\quad}$$

# Dividing



## 1. Complete these division charts.

$\div$	12	40	0	44	8	4	16	28	48	20	24
4						1			12		

$\div$	16	24	8	64	0	32	96	72	48	40	56
8				8				9			

## 2. Do these word problems.

- a Divide eighteen by two. ....
- b A half of 14 is how many? ....
- c Share sixty between ten. ....
- d How many fives make thirty? ....
- e Share 24 between three. ....
- f What is a quarter of 20? ....



## 3. Circle the sums that have the same answer as the one on the lorry.

$12 \div 2$

$40 \div 5$

$16 \div 4$

$60 \div 10$

$21 \div 3$

$24 \div 4$

$15 \div 3$

$40 \div 5$

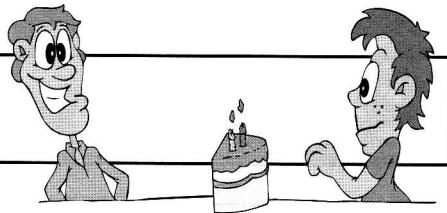
$28 \div 4$

$18 \div 2$

$30 \div 5$

$48 \div 8$

# Dividing



1. Fill in the missing numbers.

a  $\boxed{\quad} \div 2 = 8$

d  $12 \div \boxed{\quad} = 6$

b  $\boxed{\quad} \div 4 = 10$

e  $28 \div 4 = \boxed{\quad}$

c  $15 \div \boxed{\quad} = 5$

f  $27 \div 3 = \boxed{\quad}$



2. Complete this division chart.

$\div$	24	9	30	3	18	12	0	27	6	21	15
3				1				9			

3. Divide the larger number by the smaller number.

a  $8 \text{ } 64 \dots$

c  $70 \text{ } 10 \dots$

e  $3 \text{ } 27 \dots$

b  $10 \text{ } 5 \dots$

d  $2 \text{ } 24 \dots$

f  $25 \text{ } 5 \dots$

4. Circle the numbers that can be divided by 3.

30

8

6

16

32

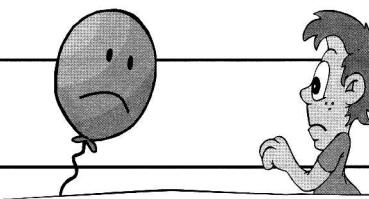
21

24

15

18

# Dividing



1. Work out the answers to these divisions.

a    \_\_\_

b    \_\_\_

c    \_\_\_

d    \_\_\_

e    \_\_\_

$$3 \overline{)7\,2}$$

$$4 \overline{)9\,2}$$

$$5 \overline{)8\,5}$$

$$8 \overline{)8\,8}$$

$$2 \overline{)8\,4}$$

2. Circle the sum that has the same answer as the large number.

a

**3**

$$22 \div 2$$

c

**8**

$$64 \div 8$$

$$24 \div 3$$

$$8 \div 8$$

$$30 \div 10$$

$$18 \div 2$$

b

**11**

$$40 \div 4$$

d

**2**

$$21 \div 7$$

$$33 \div 3$$

$$4 \div 2$$

$$56 \div 8$$

$$4 \div 4$$

3. What numbers will come out of the number machines below?

a

21

divide  
by 3

.....



b

80

divide  
by 2

.....

divide  
by 4

.....

c

96

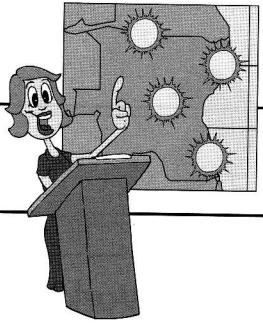
divide  
by 8

.....

divide  
by 2

.....

# Estimating and Inverses



1. Circle the best answer from the numbers given.

- a 986 is nearly      100      500      1000      2000
- b 149 is roughly      140      150      940      200
- c 201 is nearly      100      150      200      250
- d 251 is closest to      200      300      150      350

2. Write a calculation you could use to estimate the answer to the following problems.

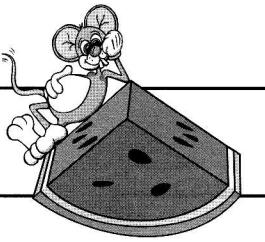
- a  $49 \times 28$              $\times$
- b  $81 + 102$              $+$
- c  $101 \div 19$              $\div$
- d  $203 - 97$              $-$



3. Circle the number that is closest to the number in the box.

- |                            |            |     |     |                            |            |     |     |
|----------------------------|------------|-----|-----|----------------------------|------------|-----|-----|
| <input type="checkbox"/> a | <b>37</b>  | 40  | 30  | <input type="checkbox"/> c | <b>321</b> | 300 | 400 |
| <input type="checkbox"/> b | <b>175</b> | 100 | 200 | <input type="checkbox"/> d | <b>111</b> | 110 | 120 |

# Fractions



1. Put the fractions in order in the boxes.

$\frac{1}{9}$

$\frac{4}{9}$

$\frac{3}{9}$

$\frac{9}{9}$

$\frac{6}{9}$

$\frac{8}{9}$





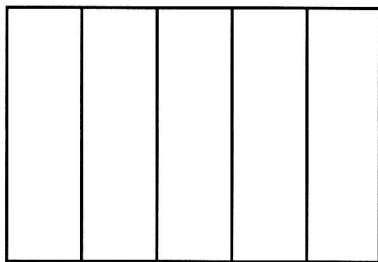


Smallest

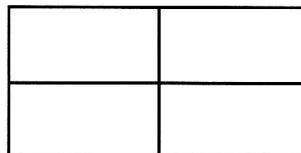
Largest

2. Shade in the correct fraction of each rectangle.

a



b

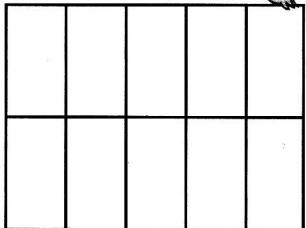


$\frac{3}{4}$

$\frac{4}{5}$



c



$\frac{2}{10}$

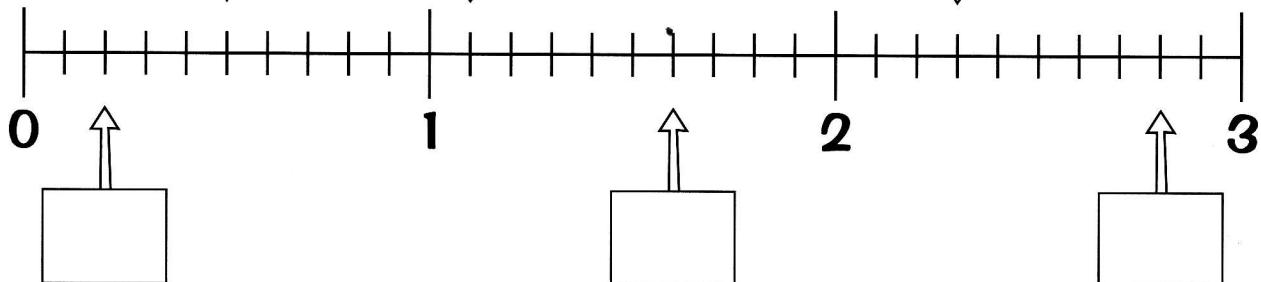
3. Fill in the empty boxes on the number line with the correct fractions.

$\frac{5}{10}$

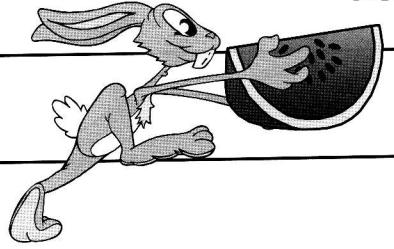




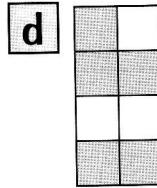
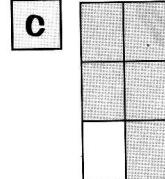
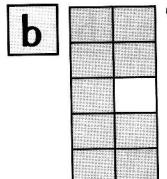
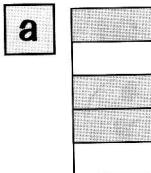
$2\frac{3}{10}$



# Fractions



## 1. What fraction of each shape is shaded?



## 2. Put the fractions in order in the boxes.

$\frac{1}{4}$

$\frac{1}{10}$

$\frac{1}{3}$

$\frac{1}{2}$

$\frac{1}{5}$

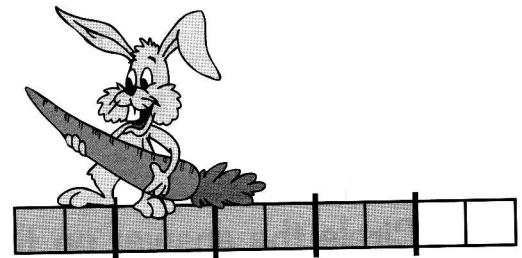
$\frac{1}{8}$

Smallest

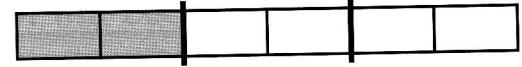
Largest

## 3. Fill in the missing numbers.

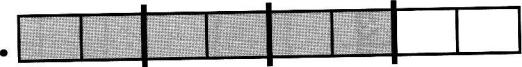
a Eight tenths is the same as ..... fifths.



b Two sixths is the same as ..... third.



c Six eighths is the same as ..... quarters.



## 4. Circle the fractions which are smaller than $\frac{1}{2}$ .

$\frac{2}{4}$

$\frac{1}{4}$

$\frac{6}{10}$

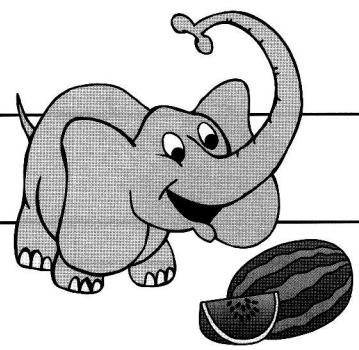
$\frac{1}{10}$

$\frac{2}{2}$

$\frac{1}{6}$

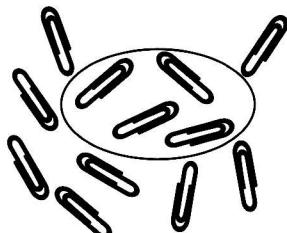
$\frac{2}{3}$

# Fractions

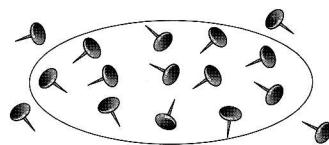


1. What fraction of each set is circled?

a



b



2. Shade in the correct fraction of the shapes.

a

$\frac{1}{4}$



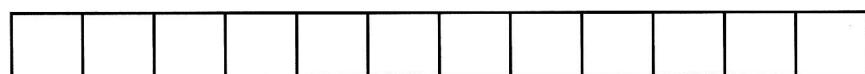
b

$\frac{2}{3}$



c

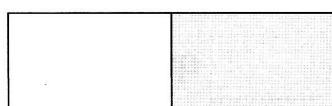
$\frac{3}{4}$



3. Circle the answer on the right which is the same as the fraction shown on the left.

a

$\frac{3}{6}$

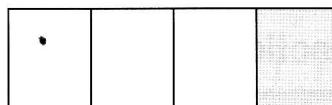


$\frac{1}{7}$

b

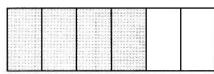
$\frac{2}{8}$

$\frac{1}{2}$

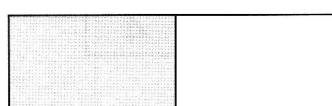


$\frac{3}{4}$

c

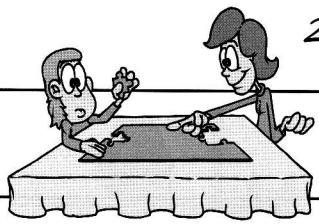


$\frac{2}{3}$



$\frac{1}{6}$

# Fraction Calculations



1. Write the number that is one quarter of each of these numbers.

a 16 .....

c 24 .....

e 40 .....

b 32 .....

d 36 .....

f 4 .....

2. Complete these sums.



a  $\frac{1}{7} + \frac{4}{7}$  .....

d  $\frac{9}{9} - \frac{2}{9}$  .....

b  $\frac{3}{8} + \frac{4}{8}$  .....

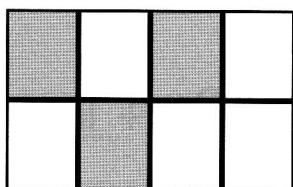
e  $\frac{2}{6} + \frac{2}{6}$  .....

c  $\frac{5}{10} - \frac{4}{10}$  .....

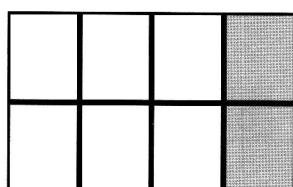
f  $\frac{3}{4} - \frac{1}{4}$  .....

3. Answer the following questions by shading in the correct fraction.

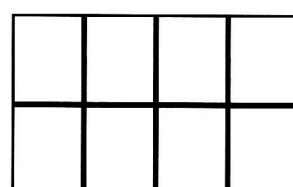
a



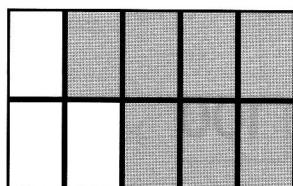
+



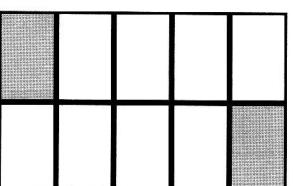
=



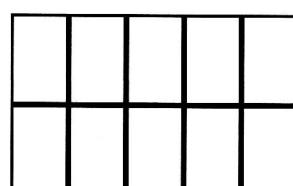
b



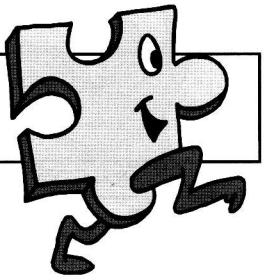
-



=



# Fraction Calculations



1. Circle the fractions that can be added together to make the fraction in the box.

**a**

$$\frac{7}{10}$$

$$\frac{5}{10} \quad \frac{1}{10} \quad \frac{2}{10}$$

**c**

$$\frac{3}{4}$$

$$\frac{1}{4} \quad \frac{1}{4} \quad \frac{1}{4}$$

**b**

$$\frac{9}{9}$$

$$\frac{3}{9} \quad \frac{2}{9} \quad \frac{6}{9}$$

**d**

$$\frac{5}{6}$$

$$\frac{1}{6} \quad \frac{2}{6} \quad \frac{4}{6}$$

2. Write the number that is one fifth of each of these numbers.

**a**

25 .....

**c**

15 .....

**e**

20 .....

**b**

40 .....

**d**

35 .....

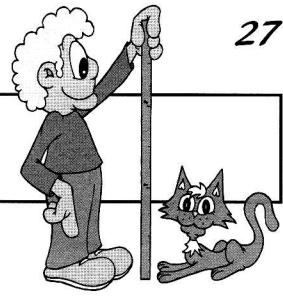
**f**

60 .....

3. Complete these questions.

**a**
 $\frac{2}{8}$  of 16 .....**d**
 $\frac{1}{10}$  of 40 .....**b**
 $\frac{1}{3}$  of 33 .....**e**
 $\frac{4}{8}$  of 48 .....**c**
 $\frac{3}{5}$  of 25 .....**f**
 $\frac{8}{10}$  of 100 .....

# Measuring Problems



## 1. How many centimetres are there in these lengths?

a 5 m .....

e 10 mm .....

b 3 m .....

f 8 m .....

c 60 mm .....

g 4 m .....

d 9 m .....

h 800 mm .....

## 2. How many grams are in these masses?

a 3 kg .....

c 9 kg .....

e 8 kg .....

b 7 kg .....

d 5 kg .....

f 2 kg .....

## 3. Work out the missing amounts.

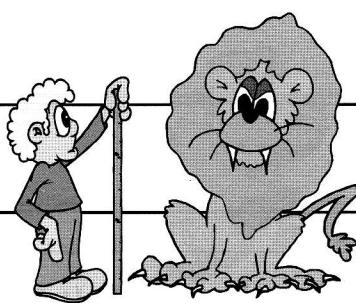


a  $8 \text{ ml} + 4 \text{ ml} = \boxed{\quad} \text{ ml}$       d  $32 \text{ ml} \div \boxed{\quad} = 8 \text{ ml}$

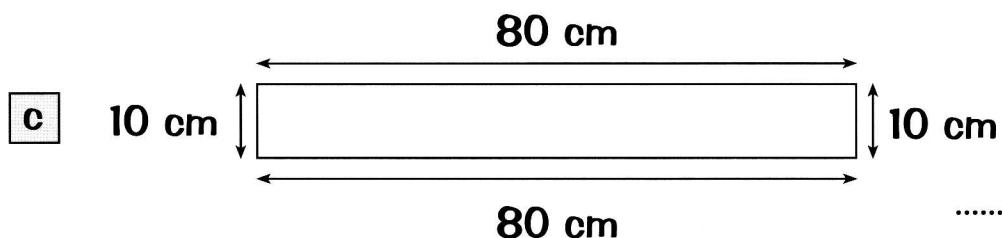
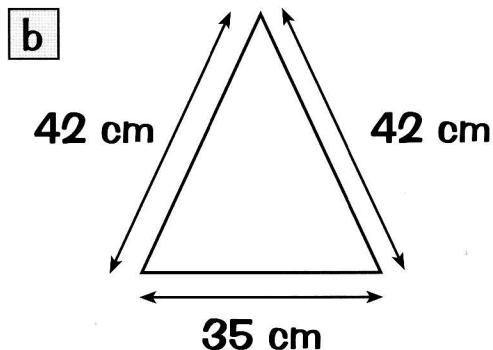
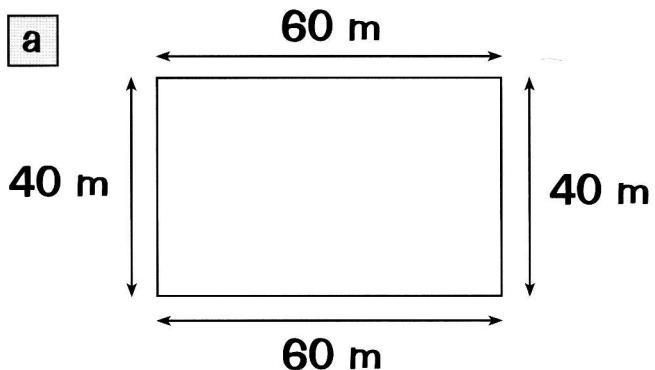
b  $\boxed{\quad} \text{ cm} - 9 \text{ cm} = 6 \text{ cm}$       e  $\boxed{\quad} \text{ ml} - 9 \text{ ml} = 15 \text{ ml}$

c  $10 \text{ m} \times \boxed{\quad} = 40 \text{ m}$       f  $13 \text{ g} + \boxed{\quad} \text{ g} = 34 \text{ g}$

# Measuring Problems



1. Calculate the perimeters of the following shapes.



2. How many millilitres are in these volumes?

**a** 4 litres .....  
.....

**c** 8 litres .....  
.....

**b** 5 litres .....  
.....

**d** 2 litres .....  
.....

3. For each question, circle the largest amount.



**a** 5 litres      150 ml      2 litres

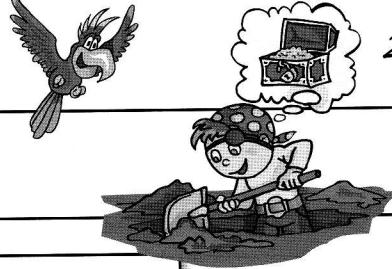
**b** 2 cm      20 mm      1 m

**c** 12 g      2 kg      200 g

**d** 500 mm      2 m      20 cm



# Money Problems



1. How much change from 50p will you get if you spend...

a 19p? .....

e 45p? .....

b 33p? .....

f 28p? .....

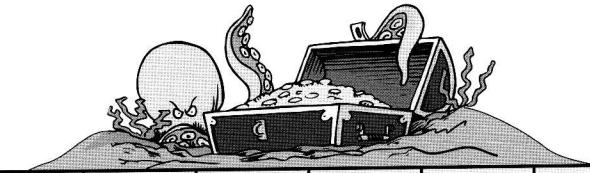
c 27p? .....

g 34p? .....

d 42p? .....

h 16p? .....

2. Complete this addition chart.



+	23p	34p	54p	25p	14p	32p	45p	12p	52p	43p	55p
24p		58p							76p		
39p	62p						84p				

3. How many pence are in the following amounts?

a £1.00 .....

c £3.50 .....

b £2.06 .....

d £9.98 .....

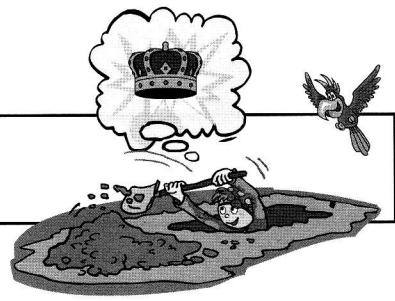
4. How many 10p coins are in the following amounts?

a 70p .....

b £1.10 .....

c £2.20 .....

# Money Problems



## 1. Work out the answers to these problems.

- a** Claire spent 15p and had 11p left.  
How much did she have at first? .....
- b** Ben has a 10p piece, a 20p piece and three 5p pieces.  
How much does he have altogether? .....
- c** A ham roll costs 55p.  
Write the cost in pence of two ham rolls. .....
- d** June spends 80p on chocolate.  
Write how many 20p pieces she will need. .....

## 2. Complete this subtraction chart.



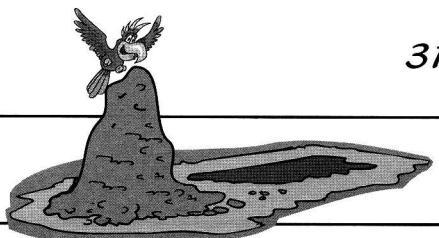
-	13p	17p	22p	16p	11p	23p	15p	18p	12p	21p	14p
28p			6p							7p	
39p		22p								18p	

## 3. How much change from £1 do you get if you spend...

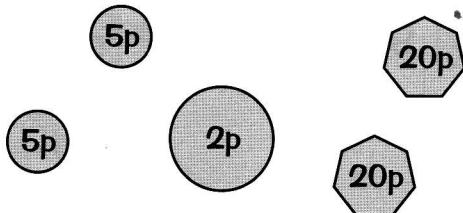
- a** 18p? .....
- b** 41p? .....
- c** 32p? .....
- d** 27p? .....

- e** 36p? .....
- f** 23p? .....
- g** 11p? .....
- h** 45p? .....

# Money Problems

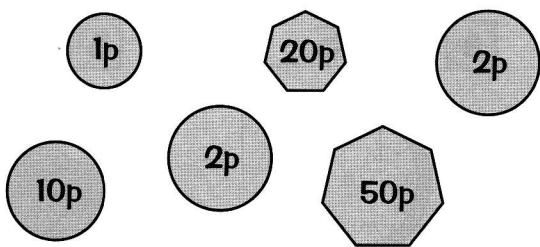


**1.** Add each set of coins and subtract the total from £1.

**a**

Total: .....

Change from £1: .....

**b**

Total: .....

Change from £1: .....

**2.** Solve these problems.

**a** Burgers cost £2.10 each and packets of chips cost 50p.

How much would a burger and 2 packets of chips cost? .....

**b** Harriet buys 5 apples. She spends 55p.

How much does each apple cost? .....

**c** Liam spends £7.30. How much

change does he get from £10? .....

**3.** Work out how much these things will cost in a half price sale.

**a**

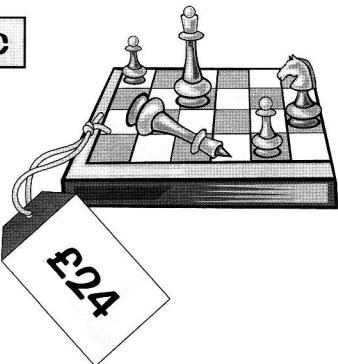
400p

.....

**b**

£8.00

.....

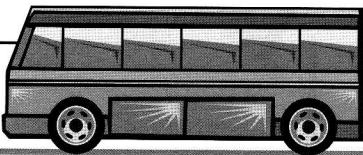
**c**

£24

.....

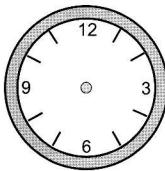
# Time Problems

BUS STOP

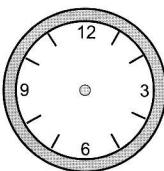


1. Show each time on the clock face below it.

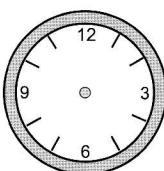
a 7:25



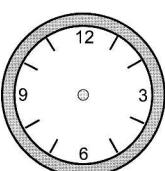
b 10:05



c 9:40



d 3:55



2. Fill in the missing numbers.

a 1 day =  hours

d  days = 1 year

b 60 minutes =  hour

e  days = 1 leap year

c 1 minute =  seconds

3. How many days are in the following months.



a January .....

e May .....

i September .....

b February .....

f June .....

j October .....

c March .....

g July .....

k November .....

d April .....

h August .....

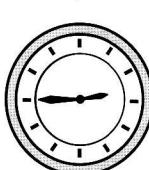
l December .....

4. Write each time as a 12-hour digital clock would show it.

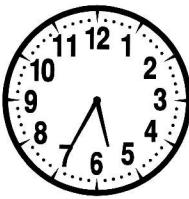
a

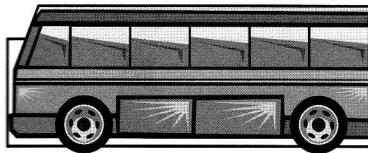



b




c





# Time Problems



1. Write these times as they would be on a 12-hour clock. Use am or pm.

a 2 o'clock in  
the afternoon .....  
.....

b   
in the morning .....  
.....

c 21:14 .....  
.....

d noon .....  
.....

e   
.....

f midnight .....  
.....

2. Work out these problems.

a What time does a science lesson end if it begins  
at 2:05 pm and lasts 45 minutes? .....  
.....

b How many minutes is it from  
25 minutes to six until half past six? .....  
.....

c It takes Sue 16 minutes to get to school.  
At what time must she set off to arrive by 8:50 am? .....  
.....

3. Class 5 are visiting a theme park near York.  
Use their timetable to answer the questions.



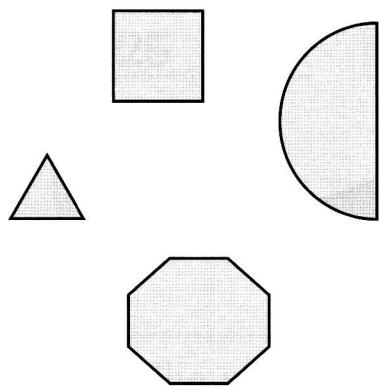
Coach leaves school	8.30 am
Arrive York	10.15 am
Arrive Theme Park	10.25 am
Lunch	12.15 pm
Group activities	12.45 pm
Depart Theme Park	4.30 pm
Arrive back at school	5.45 pm

- a When do they arrive in York? .....  
.....
- b How long does it take to get  
from school to the Theme Park? .....  
.....
- c How long do the  
group activities last? .....  
.....

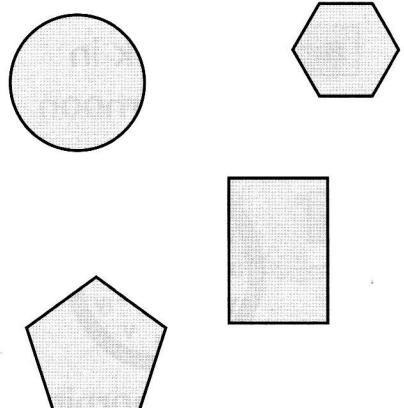
# Shape



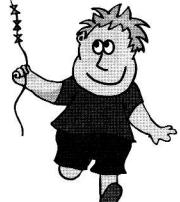
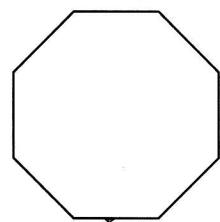
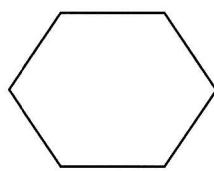
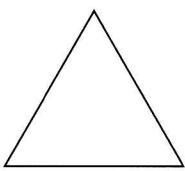
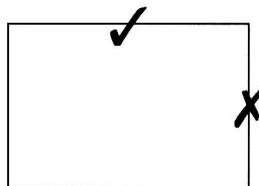
1. Join each shape to its name.



circle	hexagon
octagon	pentagon
square	triangle
semicircle	rectangle



2. Put a tick through any horizontal lines, and a cross through any vertical lines in the shapes below.



3. How many degrees in a...

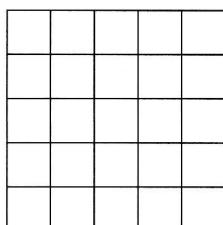
a ...half turn? .....

c ...whole turn? .....

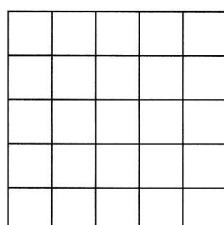
b ... $\frac{1}{4}$  turn? .....

d ... $\frac{3}{4}$  turn? .....

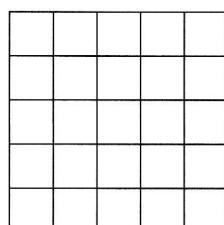
4. On each grid draw and colour the 2D shape named below it. Make sure your drawings fill as much of the grid as possible.



square



rectangle

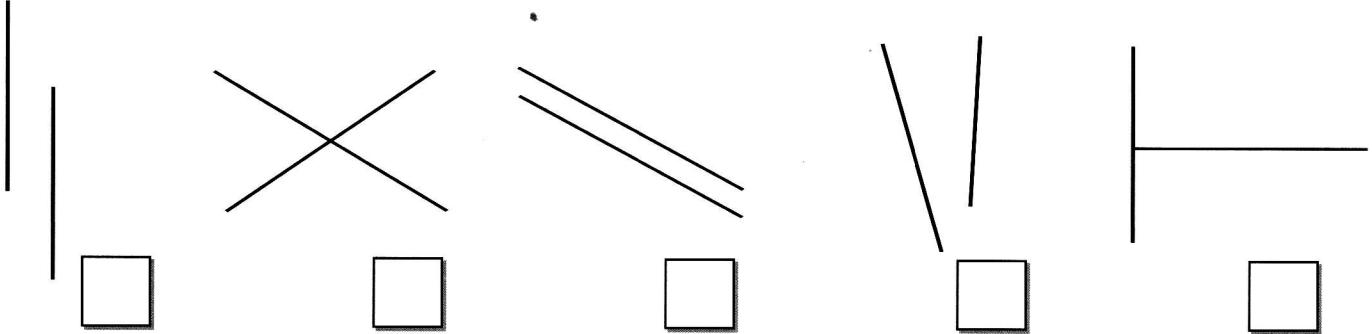


triangle



# Shape

1. Put a tick by the sets of parallel lines.



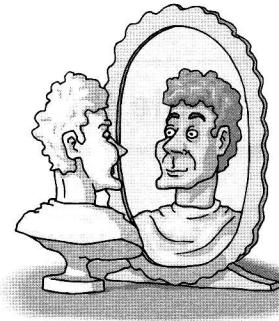
2. How many faces do these 3D shapes have?

a triangular prism .....

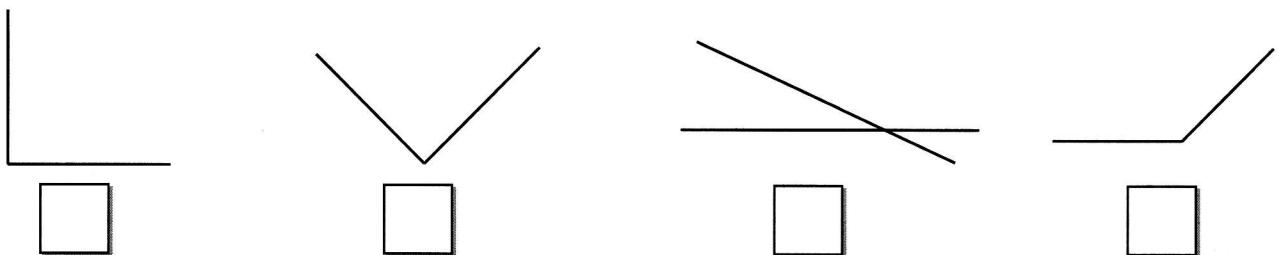
c cone .....

b cube .....

d cylinder .....



3. Tick the lines that are perpendicular to each other.



4. Name the 2D shapes which have the following number of sides.

a 4 .....

c 8 .....

e 3 .....

b 6 .....

d 5 .....

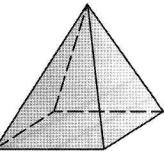
f 1 .....

# Shape

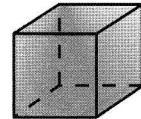


1. Join each of the solid shapes below to its correct name.

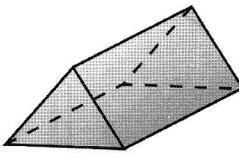
cylinder



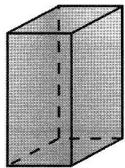
cube



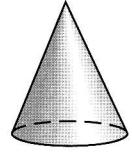
triangular prism



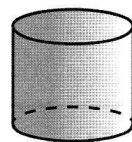
cuboid



cone



square-based pyramid



2. Write the number of each of the 3D shapes described below.

a tube-shaped

c six square faces

b round base and  
a pointed top

d shaped like a ball

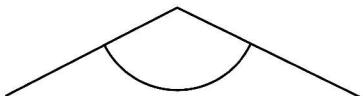
1. cube

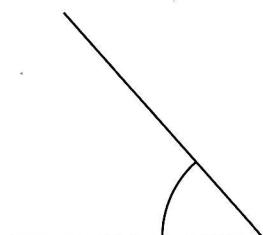
2. sphere

3. cylinder

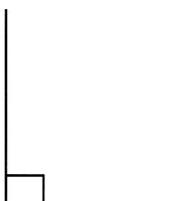
4. cone

3. Put a tick next to the obtuse angles. Circle any right angles.

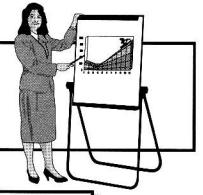








# Using Data

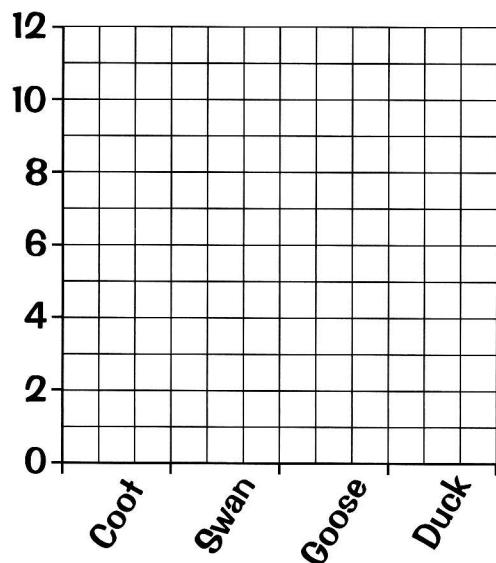


1. This pictogram shows how many jigsaw puzzles a shop sold on each day of one week. Use it to help you answer the questions.

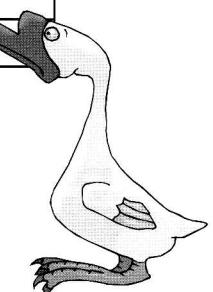
Key:  = 2 puzzles	
	Number of jigsaw puzzles sold
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

- a How many puzzles were sold on Tuesday? .....
- b How many puzzles were sold altogether on Monday, Wednesday and Friday? .....
- c On which day were the most puzzles sold? .....
- d How many more puzzles were sold on Thursday than on Wednesday? .....

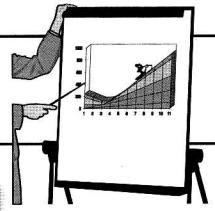
2. Add the information on the right into the bar chart.



Bird Type	Number
Coot	11
Swan	8
Goose	5
Duck	12

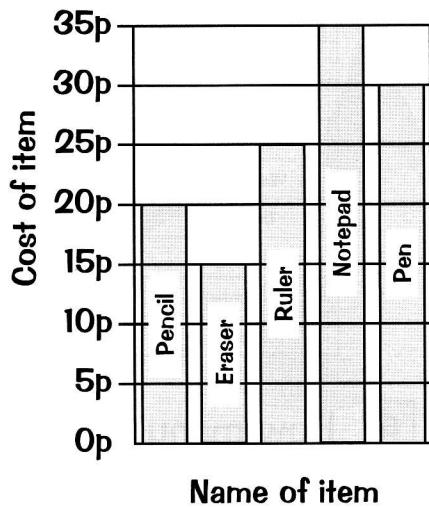


# Using Data



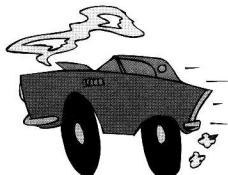
1. This bar chart shows how Henry spent his pocket money.  
Look at it and then answer the questions.

- a Which item cost twice as much as the eraser? .....
- b Which item cost 15p more than the pencil? .....
- c How much more did the ruler cost than the eraser? .....
- d How much less than the pen was the pencil? .....
- e How much did Henry spend altogether?  
Give your answer using the £ sign. ....



2. The table shows how many vehicles passed a school between 11am and noon during a three day period.  
Use it to help you answer the questions.

Vehicle types	Vehicle numbers			TOTALS
	Wed	Thurs	Fri	
Cars	48	72	80	
Vans	24	25	29	
Motorcycles	7	13	22	
Lorries	18	19	27	

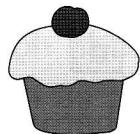


- a Fill in the missing totals in the table.
- b How many vehicles passed the school on Wednesday?  
.....
- c On which day did the most vehicles pass the school?  
.....



## Using Data

1. Use the information below to complete the pictogram about the number of cakes a bakery sold over 1 week.



= 8 cakes



= 4 cakes

Day	Cakes Sold	Total
Monday		
Tuesday		44
Wednesday		64
Thursday		
Friday		
Saturday		60
Sunday		24

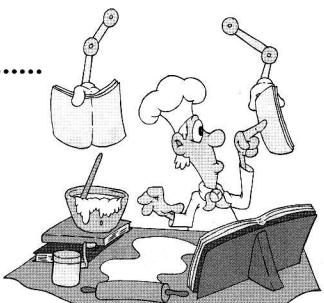
2. Use your pictogram to answer these questions.

a How many cakes were sold over the weekend? .....

b How many more cakes were sold on Thursday than Sunday? .....

c How many fewer cakes were sold on Tuesday than Thursday? .....

d On which day were the fewest cakes sold? .....



# Answers — Pages 1 to 12

**PAGE 1**

- Q1. a) forty-seven b) seventy-three  
 c) sixty-nine d) eighty-two  
 e) fifty-one  
 f) one hundred and thirty-four  
 g) three hundred and ninety-five  
 h) eight hundred and twenty-six  
 Q2. a) 360 b) 502 c) 850 d) 1000  
 Q3. 498, 499, 500, 501, 502, (503),  
 504, 505, 506, 507, 508  
 Q4. eleven

**PAGE 2**

- Q1. a) 6, 21 b) 55, 70  
 c) 34, 49 d) 82, 97  
 e) 18, 33 f) 97, 112  
 Q2. a) (0), 4, 8, 12, 16, 20, 24, 28, 32,  
 36  
 b) (0), 8, 16, 24, 32, 40, 48, 56,  
 64, 72  
 c) (0), 50, 100, 150, 200, 250,  
 300, 350, 400, 450  
 d) (0), 100, 200, 300, 400, 500,  
 600, 700, 800, 900  
 Q3. (0), (3), 6, 9, (12), 15, 18, 21,  
 24, 27, 30

**PAGE 3**

- Q1. a) (625) b) 704  
 c) 193 d) 580  
 Q2. a) 400 b) 4  
 c) 40 d) 40  
 Q3. a) H T O b) H T O  
  
 c) H T O d) H T O  
  
 Q4. a) 1 b) 6 c) 9

**PAGE 4**

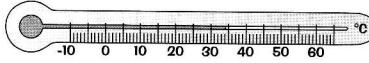
- Q1. a) (321, 123)  
 b) 762, 267  
 c) 975, 579  
 d) 543, 345  
 e) 981, 189  
 f) 884, 488  
 Q2. a) 2 b) 40  
 c) 800 d) 8000  
 e) 30  
 Q3. 102, 123, 131, 201, 213, 231, 302,  
 312, 321

**PAGE 5**

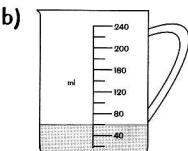
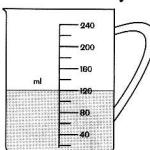
- Q1. a) Check that suitable numbers have been chosen.  
 b) Check that suitable numbers have been chosen.  
 Q2. 654, 645, 605, 564, 546, 506,  
 465, 456, 405  
 Q3. a) > b) <  
 c) < d) >  
 Q4. a) 1 b) 0  
 c) 9 d) 8

**PAGE 6**

- Q1. a) (500 ml) b) 600 ml  
 c) 300 ml d) 900 ml  
 Q2. 55 kg  
 Q3.

**PAGE 7**

- Q1. a) 160 b) 320  
 Q2. a) 190 cm b) 70 cm  
 Q3. a)

**PAGE 8**

- Q1. a) 482 b) 408  
 c) 669 d) 520  
 e) 710 f) 813  
 Q2. a) 1000 b) 628  
 c) 196 d) 121  
 e) 767 f) 103  
 Q3. a) 47 b) 87  
 c) 72 d) 91  
 e) 82  
 Q4. a) 873 b) 985  
 c) 693 d) 624

**PAGE 9**

Q1. a)

+	25	37	48
29	54	66	77
35	60	72	83
43	68	80	91

b)

+	52	65	78
59	111	124	137
67	119	132	145
73	125	138	151

- Q2. a) 56 b) 43  
 c) 123 d) 202  
 Q3. a) 8 b) 27  
 c) 200 d) 206  
 Q4. a) 30 b) 26

**PAGE 10**

- Q1. Check that suitable answers have been given.  
 Q2. a) 878 b) 676  
 c) 775 d) 676  
 Q3. a) 121 b) 157  
 c) 517 d) 100  
 e) 10  
 Q4. a)

+	47	69	86
54	101	123	140
75	122	144	161
98	145	167	184

b)

+	124	138	149
101	225	239	250
132	256	270	281
145	269	283	294

**PAGE 11**

- Q1. a) 462 b) 388  
 c) 649 d) 500  
 e) 690 f) 793  
 Q2. 36  
 Q3. a) 200 b) 535  
 c) 47  
 Q4. a) 675 b) 648  
 c) 378 d) 496  
 e) 460 f) 100

**PAGE 12**

- Q1. a) 900 b) 200  
 Q2. a) 5 b) 33  
 c) 36 d) 9  
 Q3. a) fifty b) sixty-three  
 Q4. a) 34 b) 41  
 c) 39 d) 27  
 e) 36

# Answers – Pages 13 to 24

**PAGE 13**

Q1. a)

-	51	65	79
23	28	42	56
35	16	30	44
48	3	17	31

b)

-	110	130	150
84	26	46	66
72	38	58	78
46	64	84	104

- Q2. a) 100 b) 6  
c) 74 d) 119  
e) 44 f) 278

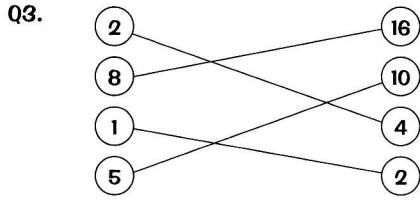
Q3. Check that suitable answers have been given.

- Q4. a) 445 b) 418  
c) 178 d) 86

**PAGE 14**

- Q1. a) 16 b) 36  
c) 25 d) 12  
e) 70 f) 48

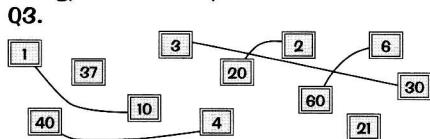
- Q2. 30, 12, 21, 6, 24, 9, 18, 36, 15

**PAGE 15**

Q1.

x	4	9	1	6	0	5	3	8	10	2	7
4	16	36	4	24	0	20	12	32	40	8	28
8	32	72	8	48	0	40	24	64	80	16	56
10	40	90	10	60	0	50	30	80	100	20	70

- Q2. a) 3 b) 4  
c) 10 d) 4  
e) 7 f) 30  
g) 25 h) 8

**PAGE 16**

- Q1. a) forty-eight  
b) forty  
c) six  
d) twenty-eight  
e) thirty  
Q2. a) 155 b) 176  
c) 171 d) 248  
e) 112  
Q3. a) 56 b) 8, 88  
Q4.  $8 \times 4 = 32$  or  
 $4 \times 8 = 32$

**PAGE 17**

Q1.

÷	12	40	0	44	8	4	16	28	48	20	24
4	3	10	0	11	2	1	4	7	12	5	6

÷	16	24	8	64	0	32	96	72	48	40	56
8	2	3	1	8	0	4	12	9	6	5	7

- Q2. a) 9 b) 7  
c) 6 d) 6  
e) 8 f) 5  
Q3.  $12 \div 2$ ,  $24 \div 4$ ,  $30 \div 5$ ,  
 $60 \div 10$ ,  $48 \div 8$

**PAGE 18**

- Q1. a) 16 b) 40  
c) 3 d) 2  
e) 7 f) 9

Q2.

÷	24	9	30	3	18	12	0	27	6	21	15
3	8	3	10	1	6	4	0	9	2	7	5

- Q3. a) 8 b) 2  
c) 7 d) 12  
e) 9 f) 5  
Q4. 30, 21, 24, 6, 15, 18

**PAGE 19**

- Q1. a) 24 b) 23  
c) 17 d) 11  
e) 42  
Q2. a)  $30 \div 10$  b)  $33 \div 3$   
c)  $64 \div 8$  d)  $4 \div 2$   
Q3. a) 7 b) 40, 10  
c) 12, 6

**PAGE 20**

- Q1. a) 1000 b) 150  
c) 200 d) 300  
Q2. a)  $50 \times 30$  b)  $80 + 100$   
c)  $100 \div 20$  d)  $200 - 100$   
Q3. a) 40 b) 200  
c) 300 d) 110

**PAGE 21**

- Q1. a)  $84 \div 14 = 6$  or  
 $84 \div 6 = 14$   
b)  $133 - 44 = 89$  or  
 $133 - 89 = 44$   
c)  $147 + 641 = 788$  or  
 $641 + 147 = 788$   
d)  $15 \times 11 = 165$  or  
 $11 \times 15 = 165$   
Q2. a) 300 b) 250  
c) 650  
Q3. a) 500 b) 300  
c) 400 d) 50

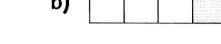
**PAGE 22**

- Q1.  $\frac{1}{9}$ ,  $\frac{3}{9}$ ,  $\frac{4}{9}$ ,  $\frac{6}{9}$ ,  $\frac{8}{9}$ ,  $\frac{9}{9}$   
Q2. a) Any 4 boxes shaded  
b) Any 3 boxes shaded  
c) Any 2 boxes shaded  
Q3.  $\frac{2}{10}$ ,  $1\frac{1}{10}$ ,  $1\frac{6}{10}$ ,  $2\frac{8}{10}$

**PAGE 23**

- Q1. a)  $\frac{3}{5}$  b)  $\frac{9}{10}$   
c)  $\frac{6}{5}$  d)  $\frac{5}{8}$   
Q2.  $\frac{1}{10}$ ,  $\frac{1}{8}$ ,  $\frac{1}{5}$ ,  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{1}{2}$   
Q3. a) 4 b) 1  
c) 3  
Q4.  $\frac{1}{4}$ ,  $\frac{1}{6}$ ,  $\frac{1}{10}$

**PAGE 24**

- Q1. a)  $\frac{4}{12} (= \frac{1}{3})$   
b)  $\frac{12}{16} (= \frac{3}{4})$   
Q2. a) Any 2 boxes shaded  
b) Any 4 boxes shaded  
c) Any 9 boxes shaded  
Q3. a)   
b)   
c)  $\frac{2}{3}$

# Answers – Pages 25 to 34

**PAGE 25**

- Q1. a) 4      b) 8  
 c) 6      d) 9  
 e) 10     f) 1  
 Q2. a)  $\frac{5}{7}$       b)  $\frac{7}{8}$   
 c)  $\frac{1}{10}$      d)  $\frac{9}{4}$   
 e)  $\frac{4}{6}$       f)  $\frac{2}{4}$   
 Q3. a) Any 5 boxes shaded  
 b) Any 5 boxes shaded

**PAGE 26**

- Q1. a)  $\frac{5}{10}, \frac{2}{10}$       b)  $\frac{3}{9}, \frac{6}{9}$   
 c)  $\frac{1}{4}, \frac{1}{4}, \frac{1}{4}$   
 d)  $\frac{1}{6}, \frac{4}{6}$   
 Q2. a) 5      b) 8  
 c) 3      d) 7  
 e) 4      f) 12  
 Q3. a) 4      b) 11  
 c) 15     d) 4  
 e) 24      f) 80

**PAGE 27**

- Q1. a) 500      b) 300  
 c) 6      d) 900  
 e) 1      f) 800  
 g) 400     h) 80  
 Q2. a) 3000     b) 7000  
 c) 9000     d) 5000  
 e) 8000     f) 2000  
 Q3. a) 12      b) 15  
 c) 4      d) 4  
 e) 24      f) 21

**PAGE 28**

- Q1. a) 200 m      b) 119 cm  
 c) 180 cm  
 Q2. a) 4000 ml     b) 5000 ml  
 c) 8000 ml     d) 2000 ml  
 Q3. a) 5 litres     b) 1 m  
 c) 2 kg      d) 2 m

**PAGE 29**

- Q1. a) 31p      b) 17p  
 c) 23p      d) 8p  
 e) 5p      f) 22p  
 g) 16p     h) 34p

- Q2.
- |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| +   | 23p | 34p | 54p | 25p | 14p | 32p | 45p | 12p | 52p | 43p | 55p |
| 24p | 47p | 58p | 78p | 49p | 38p | 56p | 69p | 36p | 76p | 67p | 79p |
| 39p | 62p | 73p | 93p | 64p | 53p | 71p | 84p | 51p | 91p | 82p | 94p |
- Q3. a) 100p      b) 206p  
 c) 350p     d) 998p  
 Q4. a) 7      b) 11  
 c) 22

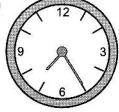
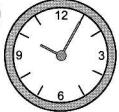
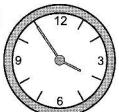
**PAGE 30**

- Q1. a) 26p      b) 45p  
 c) 110p     d) 4  
 Q2.
- |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| -   | 13p | 17p | 22p | 16p | 11p | 23p | 15p | 18p | 12p | 21p | 14p |
| 28p | 15p | 11p | 6p  | 12p | 17p | 5p  | 13p | 10p | 16p | 7p  | 14p |
| 39p | 26p | 22p | 17p | 23p | 28p | 16p | 24p | 21p | 27p | 18p | 25p |
- Q3. a) 82p      b) 59p  
 c) 68p      d) 73p  
 e) 64p      f) 77p  
 g) 89p      h) 55p

**PAGE 31**

- Q1. a) 52p, 48p      b) 85p, 15p  
 Q2. a) £3.10      b) 11p  
 c) £2.70  
 Q3. a) 200p/£2      b) £4.00  
 c) £12

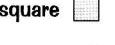
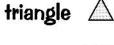
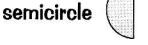
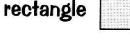
**PAGE 32**

- Q1. a)
- 
- b)
- 
- c)
- 
- d)
- 
- Q2. a) 24      b) 1  
 c) 60      d) 365  
 e) 366  
 Q3. a) 31      b) 28 or 29  
 c) 31      d) 30  
 e) 31      f) 30  
 g) 31      h) 31  
 i) 30      j) 31  
 k) 30      l) 31  
 Q4. a) 8:20      b) 2:45  
 c) 5:35

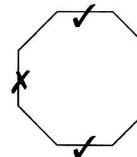
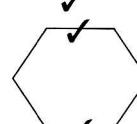
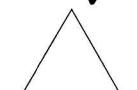
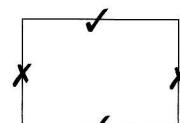
**PAGE 33**

- Q1. a) 2:00 pm      b) 10:20 am  
 c) 9:14 pm      d) 12:00 pm  
 e) 6:07 pm      f) 12:00 am  
 Q2. a) 2:50 pm      b) 55 minutes  
 c) 8:34 am  
 Q3. a) 10:15 am      b) 1 hour 55 minutes  
 c) 3 hours 45 minutes

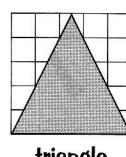
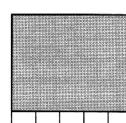
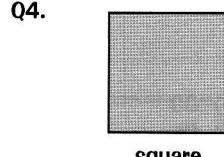
**PAGE 34**

- Q1. circle  hexagon   
 octagon  pentagon   
 square  triangle   
 semicircle  rectangle 

## Q2.



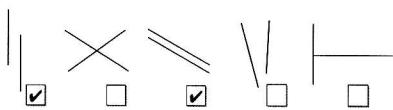
- Q3. a) 180      b) 90  
 c) 360      d) 270



# Answers – Pages 35 to 40

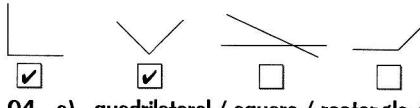
## PAGE 35

Q1.



- Q2. a) 5      b) 6  
c) 2      d) 3

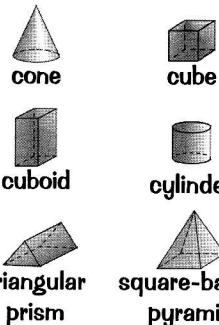
Q3.



- Q4. a) quadrilateral / square / rectangle / oblong  
b) hexagon c) octagon  
d) pentagon e) triangle  
f) circle

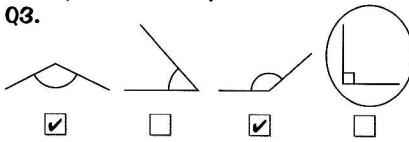
## PAGE 36

Q1.



- Q2. a) 3      b) 4  
c) 1      d) 2

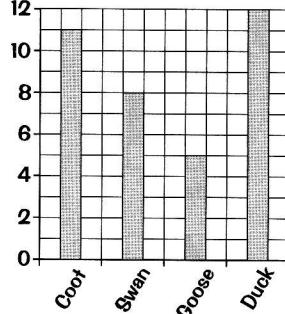
Q3.



## PAGE 37

- Q1. a) 20      b) 30  
c) Saturday d) 18

Q2.



## PAGE 38

- Q1. a) Pen      b) Notepad  
c) 10p      d) 10p  
e) £1.25

- Q2. a) 200, 78, 42, 64  
b) 97      c) Friday

## PAGE 39

- Q1. a) 6      b) 9  
c) 12      d) 3

pet	tally	frequency
(fish)		6
cat		9
dog		(12)
(hamster)		3

- Q3. a) dog      b) hamster  
c) dog      d) cat

## PAGE 40

Q1.

Day	Cakes Sold	Total
Monday		40
Tuesday		(44)
Wednesday		(64)
Thursday		52
Friday		20
Saturday		(60)
Sunday		(24)

- Q2. a) 84      b) 28  
c) 8      d) Friday