Mathematics Enhancement Programme
TEACHING SUPPORT: Year 2

EXERCISES

The following exercises are taken from Year 2 Practice Books 2a and 2b. They illustrate more of the problem-solving questions rather than the routine ones. Do try these questions before looking at the solutions and suggested strategies.

1.   Share the marbles **equally** between 2 children. Complete the table.

Marbles	4	5			8	9				13		15	16		18	19	
Per child			3	3			5	5	6		7			8			10
Left over			0	1			0	1	0		0			1			0

(p10, Q5)

2.   Complete the table. Write down the rule in different ways.

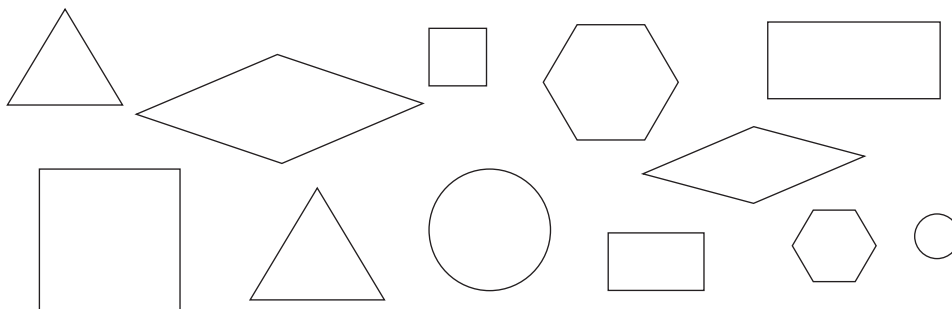| a	4	5	2	1	3	4	2			8		2		0
b	3	5	1	6	5			3	1		9	2	10	
c	3	0	7	3		4	6	6	1	1	0			

(p16, Q2)

3.   Colour the flags in different ways, using red, white and green.
On each flag, a colour may be used once and only once.
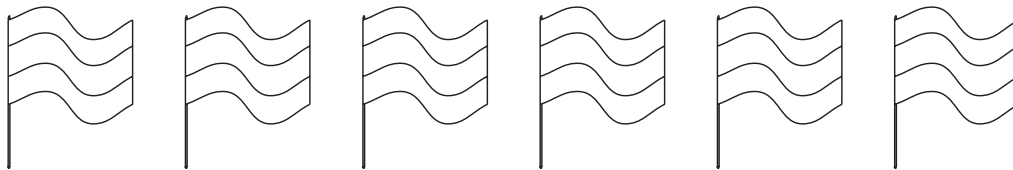
(p17, Q3)

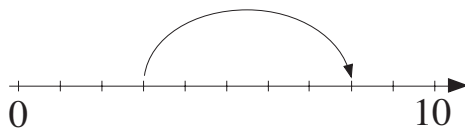**4.**   Colour similar pairs of shapes in the same colour.

(p19, Q2)

5.   Write equations and inequalities about each jump along the number line.
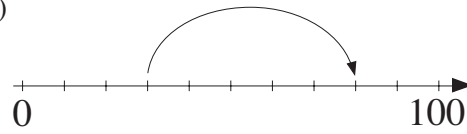
a)   b)

$\square$	<5	
3	$+$	5	$=$	$\square$
	$\square$	$5>$	3
$\square$	$-$	5	$=$	3

6.   List the numbers which make the statement true.

a) $40 <$ $\square$ < 47 $\square$: . . . .

b) $30 + 20 <$ $\bigcirc$ $< 10 + 50$ $\bigcirc$: . . . .

7.   Which numbers make the inequality rue?

Write them in the correct places on the diagram.

$80 <$ $\square$ < 100

82

Odd numbers
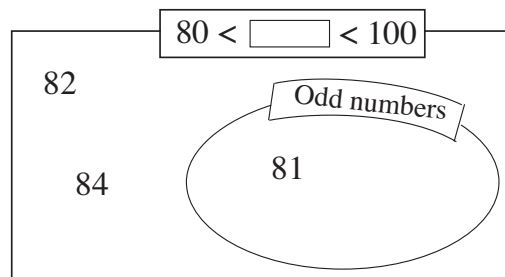
84   81

8.   Fill in the missing numbers.
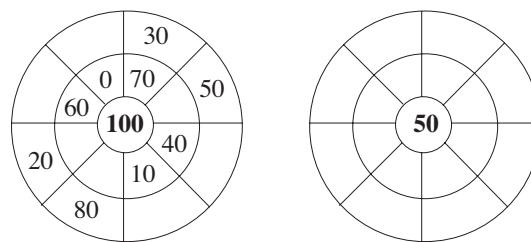
9.   The same shape means the same number. Write the numbers in each shape.

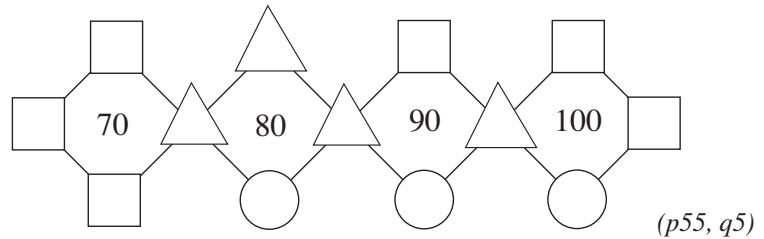a) $\square$ $+$ $\square$ $+$ $\square$ $= 90 - 30$

b) $\supset \subset$ $+$ $\supset \subset$ $= 60 + 20 + 20$

c) $\smile$ $+$ $\smile$ $+ 10 = 100 - 30$

d) $30 +$ $\square$ $= 90 -$ $\square$

10.　The same shape means the same number.

The sum of the 4 numbers at the corners equals the middle number.

(p55, q5)

11.　I thought of a number. I multiplied it by 3, then divided by 6 and got 2.

What was the number I first thought of?

(p102, Q4)

12.　Find a rule.
Complete the table.

Write the rule in different ways.

■	2	7	12	8		9	3	11		5		1
▲	4	5	2		10				5	6	7	9
●	8	35		24	90	18	18	33	40		70	

● =　　　　　▲ =　　　　　■ =

(p104, Q4)

13.　In each part, the same shape stands for the same digit. Fill in the digits.

a)　　　　　　　　　　　　　　　　　　b)

(p105, Q1)

14.　Break down the numbers into their factors. Write each as a multiplication.

16 = ...　　　24 = ...

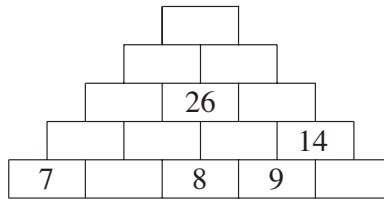16 = ...　　　24 = ...

(p110, Q2)

　　　　　　　　3
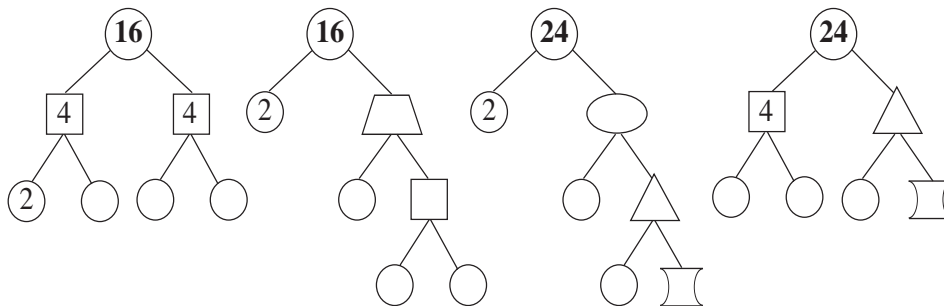
15.   Each number is the **sum** of the 2 number
       directly below it

       Fill in the missing numbers.

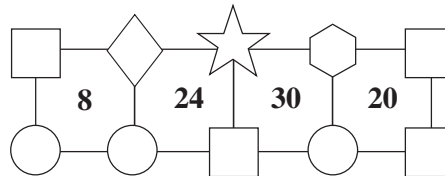|		
	26	
		14
7	8	9

(p112, Q2)

16.   The same shape means the same number. Choose from 1, 2, 3, 4 or 5.
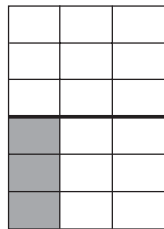
       The middle number is the
       product of the 4 numbers
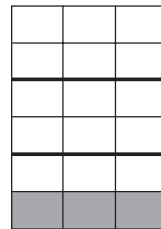   around it.

       Fill in the missing numbers.

       8   24   30   20

(p115, Q4)

17.   Compare the shaded parts. Which is more? Write in the correct sign.

       1 third of a half   **1 half** of a third

(p144, q4)

18.   Use the digits 1, 2, 3 and 4 to make pairs of 2-digit numbers.

       Each digit can be used only once in every pair, but can be in any order.

       An example of such a pair is: 21 and 34.

       a)   Which pairs have the largest **sum**?   ⬚⬚ + ⬚⬚ = ⬚⬚

              and   ⬚⬚ + ⬚⬚ = ⬚⬚

       b)   Which pairs have the smallest
              difference?   ⬚⬚ – ⬚⬚ = ⬚⬚

              and   ⬚⬚ – ⬚⬚ = ⬚⬚

(p150, Q4)

19.   There are 2 white, 2 black and 2 striped marbles in a bag.
The bag is tied with cord and you cannot see inside.

Join up the statements on the left to the labels on the right.

How certain can I be that if, with my eyes shut:

a)   I take out 1 marble,
it will be black.

b)   I take out 2 marbles,
they will be the same colour.

c)   I take out 2 marbles,

they will be different colours.

d)   I take out 5 marbles, at least
2 of them will be the same colour.

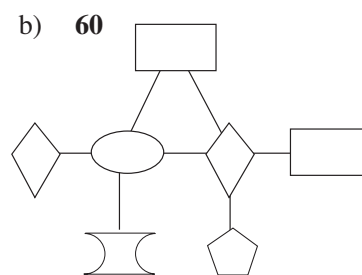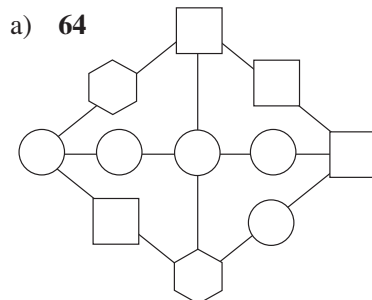e)   I take out 4 marbles, they will

all be different colours.

Certain

**Possible but
not certain**

Impossible

(p154, Q1)

20.   The same shape stands for the same 1-digit number greater than 1.
Fill in the numbers if the **product** of the numbers along each line equals:

a) **64**

b) **60**

(p170, Q3)