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)

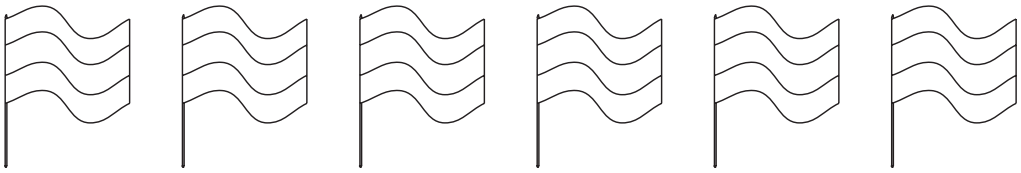
2. Complete the table. Write down the rule in different ways.

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)

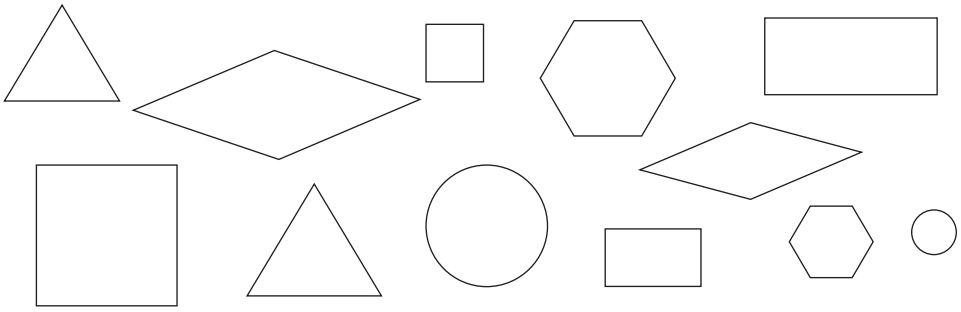
3. Colour the flags in different ways, using red, white and green.

On each flag, a colour may be used once and only once.



(p17, Q3)

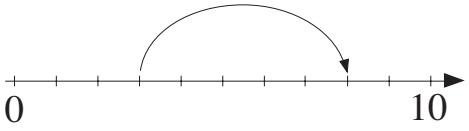
4. Colour similar pairs of shapes in the same colour.



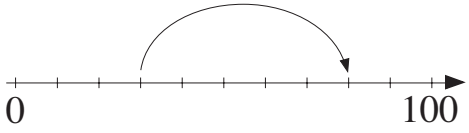
(p19, Q2)

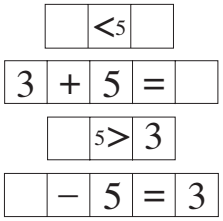
5. Write equations and inequalities about each jump along the number line.

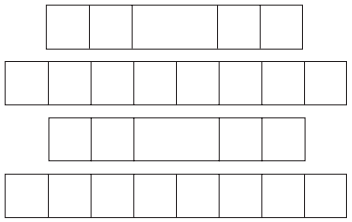
a)



b)







(p34, Q2)

6. List the numbers which make the statement true.

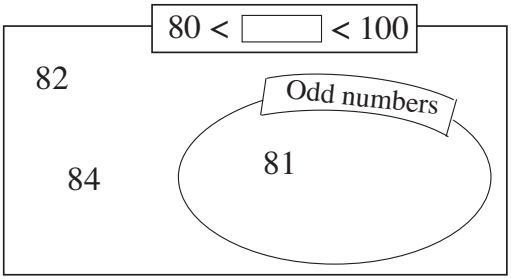
a) $40 < \square < 47$ $\square$: . . . . . .

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

(p36, Q5)

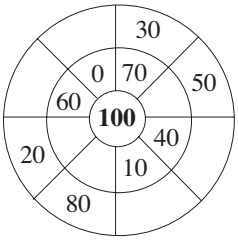
7. Which numbers make the inequality rue?

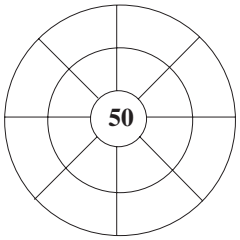
Write them in the correct places on the diagram.



(p37, Q1)

8. Fill in the missing numbers.





(p43, Q1)

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

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

b) $\cup\cup + \cup\cup = 60 + 20 + 20$

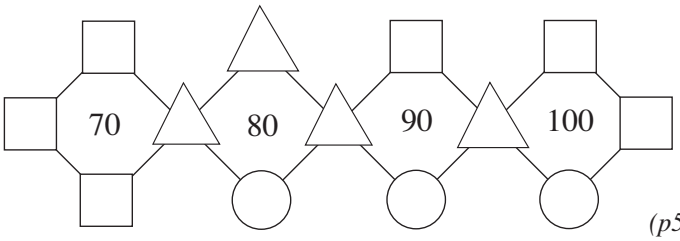
c) $\cup + \cup + 10 = 100 - 30$

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

(p49, Q3)

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)

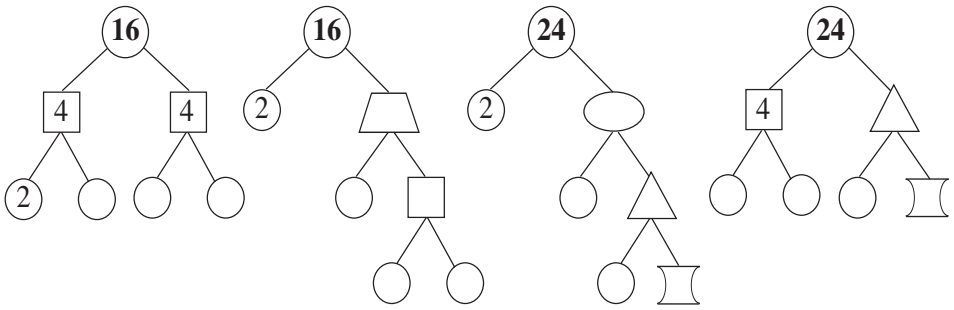
2	×	□	×	□	=	△	
×		÷		×		÷	
⬡	×	1	÷	▯	=	△	
×		×		÷		×	
▯	×	□	÷	□	=	▯	
=		=		=		=	
	÷	⬡	×	▯	=		

b)

△	×	1	÷	□	=	□	
×		×		×		÷	
⬠	×	△	÷	□	=	1	
÷		÷		÷		×	
□	×	⬠	×	□	=	□	
=		=		=		=	
1	×	⬡	÷	□	=	△	

(p105, Q1)

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



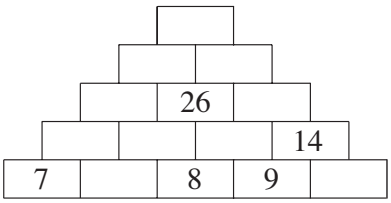
16 = ... 24 = ...

16 = ... 24 = ...

(p110, Q2)

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

Fill in the missing numbers.

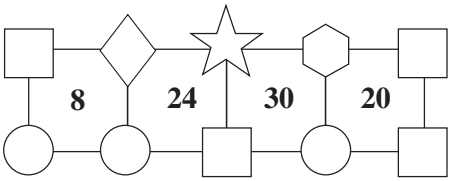


(p112, Q2)

16. The same shape means the same number. Choose from 1, 2, 3, 4 or 5.

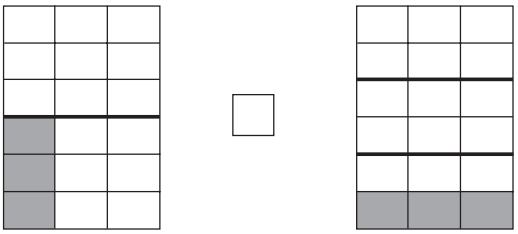
The middle number is the **product** of the 4 numbers around it.

Fill in the missing numbers.



(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 □□ + □□ = □□

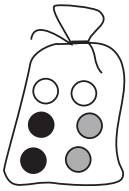
b) Which pairs have the smallest **difference**?

□□ − □□ = □□

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

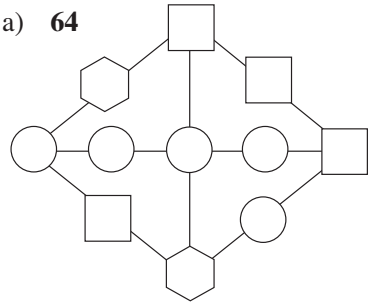
Possible but not certain

Impossible

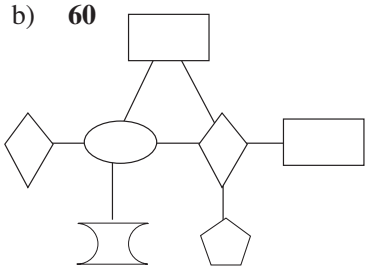
(p154, Q1)

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)