# *Mathematics Enhancement Programme*

TEACHING SUPPORT: Year 1

EXERCISES

The following exercises are taken from Year 1 Practice Books 1a and 1b. 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.   Colour the boats in different ways. Use green, yellow and red.

(p4, Q5)
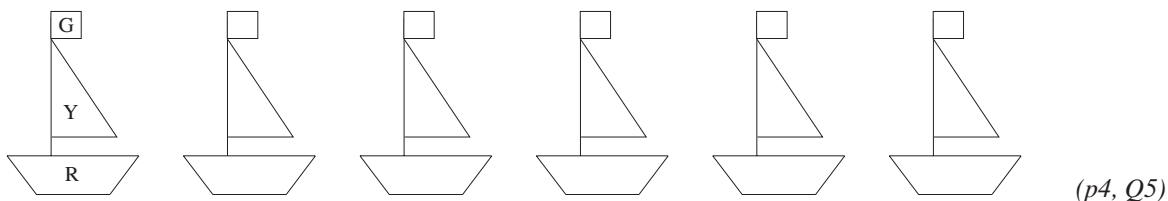
2.   Colour in the houses as shown.

(p11, Q4)
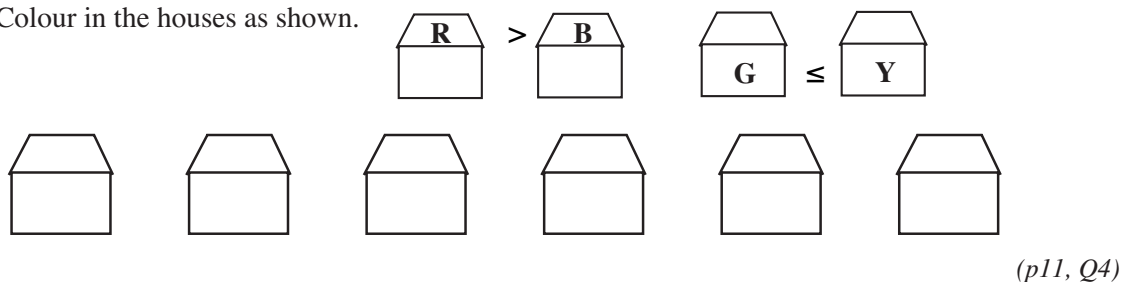
3.   Show different ways to share a Red ball, a White ball and a Green ball between Ann and Rob.

(p12, Q4)

4.   Draw **less** objects and **more** objects than the number in the middle.

(p13, Q4)

5. Complete the right-hand side of each picture to match the numbers and signs.

$1 <_1 \quad\quad 2 \triangleright_1 \quad\quad <_2 2 \quad\quad 2 =$

(p22, Q1)

6. Make the statements true by changing the place of one stick.

$\| + | = |$

$\| - | = \|$

$| + | = |$

(p25, Q3)

7. Complete the drawings to match the signs.

$\square\; _2{>}\;\square \quad\quad \square\; _1{>}\;\square \quad\quad \square\; {=}\;\square \quad\quad \square\; _3{>}\;\square$

Write in the missing numbers. *(p35, Q1)*

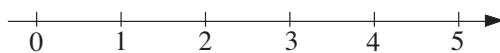**8.** Which numbers could be hidden under the cards? (0, 1, 2, 3, 4, 5)

For example: $\boxtimes \leq 3$ gives $\boxtimes$: 0, 1, 2, 3

(a) $\boxtimes < 5$ $\boxtimes$:
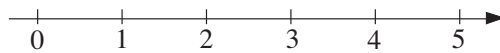
(b) $\boxtimes \geq 2$ $\boxtimes$:

(c) $2 \leq \boxtimes < 5$ $\boxtimes$:

(p46, Q1)

9.   How many different results can be found? Use + or − signs.

a)   2 ☐ 2 ☐ 1 = ☐   b)   3 ☐ 2 ☐ 1 = ☐

2 ☐ 2 ☐ 1 = ☐   3 ☐ 2 ☐ 1 = ☐

2 ☐ 2 ☐ 1 = ☐   3 ☐ 2 ☐ 1 = ☐

3 ☐ 2 ☐ 1 = ☐

(p46, Q3)

10.   Each shape represents a number.

The sum of the four numbers along each line must equal 8.

Do not use 0.

)(= ☐

☐ = ☐

△ = ☐

▱ = ☐

◯ = ☐
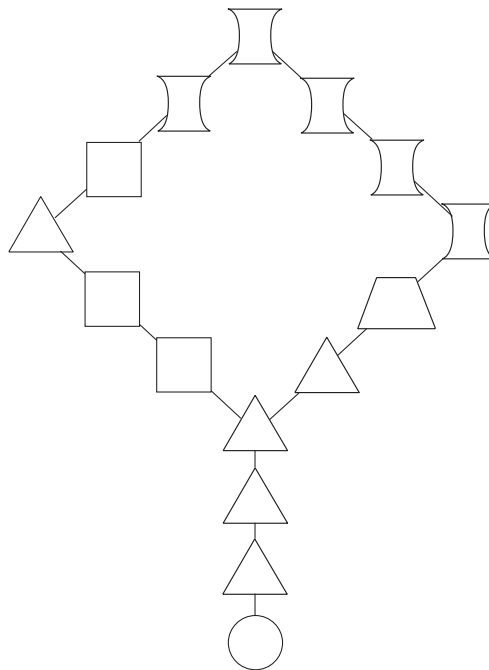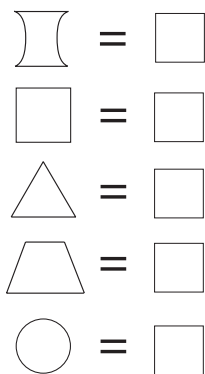
(p66, Q2)

11.   What is the machine doing? Complete the table and write down the rule.
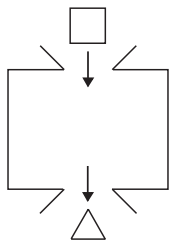
☐	4	5	8	3	9	6	7		
△	1	2	5					6	7

△ = ☐   ☐ = ☐

(p83, Q2)

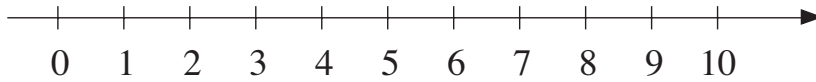**12.**   Divide the number 9 into three parts. **Do not use 0.**
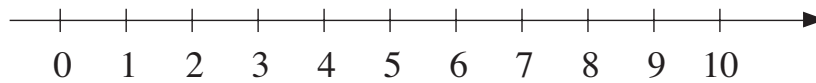
The same shape stands for the same number.
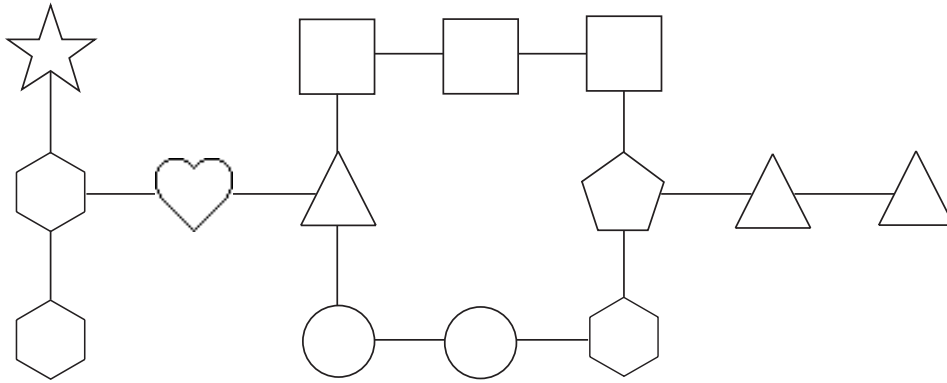
13.   Write down the answers. Mark them with dots on the number line.

a) $10 - 3 >$ ◯ $> 2 + 3$ ◯ : . . . .

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0   1   2   3   4   5   6   7   8   9   10
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b) $1 + 2 <$ △ $< 9 - 1$ △ : . . . .

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0   1   2   3   4   5   6   7   8   9   10
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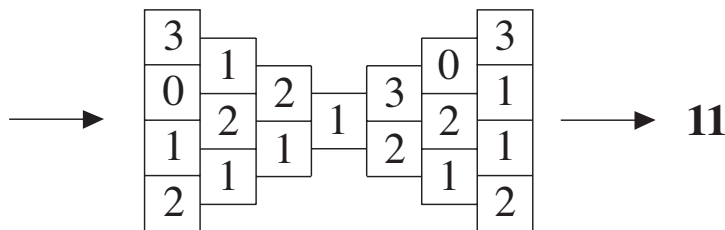**14.**   Make the statements correct by changing the place of one stick.

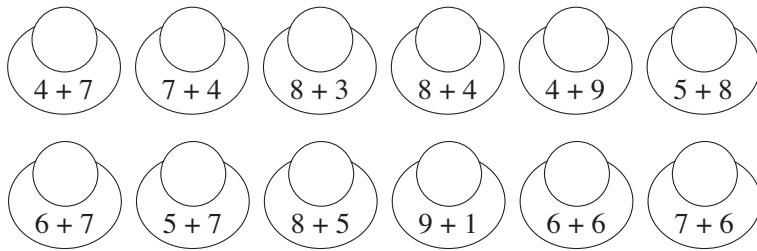a)   VI – IV = IX   b)   X – IV = IV   c)   VI + VI = X

15.   Find ways through
the maze so that the
sum of the numbers
used is 11.

11

16. Write the sums into the circles. Colour the shapes as shown.

Even: (Y)   Odd: (R)   Greater than 12: (B)   Smaller than 12: (G)

| 4 + 7 | 7 + 4 | 8 + 3 | 8 + 4 | 4 + 9 | 5 + 8 |

| 6 + 7 | 5 + 7 | 8 + 5 | 9 + 1 | 6 + 6 | 7 + 6 |

(p117, Q2)

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

$a + b = 14$ $a =$ ☐☐☐☐☐ $b =$ ☐☐☐☐☐

a	0		2			5	6			9			12		14
b		13		11	10			7	6		4	3		1	

(p125, Q3)

18. Which numbers can be written instead of the letters so that the inequalities are correct? Join each solution to the matching number line.

$13 + p \leq 16$ *p:* ☐

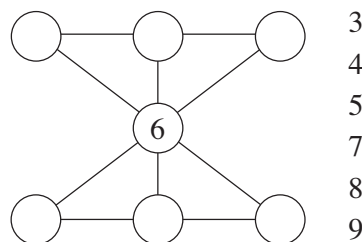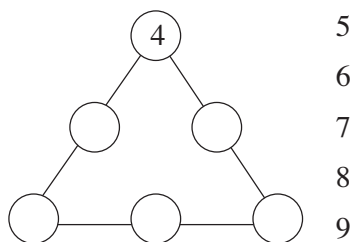$10 + a < 16$ *a:* ☐

$16 - r > 12$ *r:* ☐

$b + b < 11$ *b:* ☐

$s + 16 < 20$ *s:* ☐

(p140, Q2)

19. Write the numbers in the correct places so that the sum of the 3 numbers on each line will be 18.

4

5
6
7
8
9

6

3
4
5
7
8
9

(p145, Q4)

20. The same letter stands for the same number.

$$A + N + N + A = 20$$

Which number could each letter stand for? Write your answers in the table.

21. I thought of a number. I added 8 to it then I took away 6 and got 5.

What is the number I first thought of?