

Preface

The primary aim of **MATHS Problem-Solving Strategies Books 1-6** is to help pupils develop their mathematical thinking skills and expand their knowledge of mathematical concepts and formulae. Each book provides ample practice on various routine and practical mathematical problems.

The topics selected for each level are based on the latest syllabus. Examples of common word problems are given followed by the step-by-step working to show the process of problem solving. In **MATHS Problem-Solving Strategies Books 3-6**, notes are included. These notes highlight important and relevant mathematical concepts and formulae.

Challenging problems, which are indicated with asterisks, are also found in each topic. These challenge pupils to master their skill in higher-order thinking. Revision papers provide an overall assessment of the pupils' progress in learning these mathematical concepts.

Pupils will find this book useful in preparing for their examinations.

Francis Teo

Contents

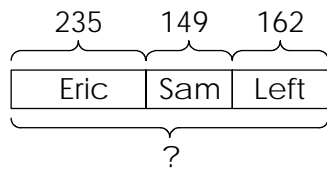
Topic 1: Addition And Subtraction Within 1000	1
Topic 2: Length	8
Topic 3: Mass	17
Topic 4: Multiplication And Division (Tables of 2 And 3)	25
Topic 5: Money	32
General Revision 1	40
General Revision 2	46
Topic 6: Multiplication And Division (Tables Of 4, 5 And 10)	52
Topic 7: Fractions	60
Topic 8: Time	67
Topic 9: Volume	73
Topic 10: Graphs	82
Topic 11: Geometry	91
Topic 12: Shapes And Patterns	96
General Revision 3	100
General Revision 4	106
Answers	113



Addition And Subtraction Within 1000

Example 1

Dan had some stamps. He gave 235 stamps to Eric, 149 stamps to Sam and had 162 stamps left. How many stamps did Dan have at first?



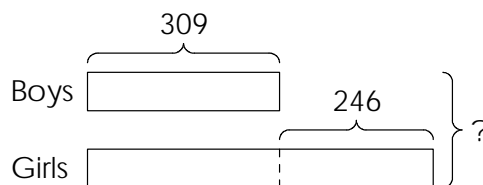
$$235 + 149 + 162 = 546$$

$$\begin{array}{r} 235 \\ 149 \\ + 162 \\ \hline 546 \end{array}$$

Dan had 546 stamps at first.

Example 2

There are 309 boys in a school. There are 246 more girls than boys in the school. How many pupils are there in the school?



$$309 + 246 = 555$$

$$\begin{array}{r} 309 \\ + 246 \\ \hline 555 \end{array}$$

There are 555 girls in the school.

$$309 + 555 = 864$$

$$\begin{array}{r} 309 \\ + 555 \\ \hline 864 \end{array}$$

There are 864 pupils in the school.

*3. Shirley had 405 blue beads and 398 red beads. She gave 142 beads to her friend. How many beads had she left?

4. Benny bought some paper clips. He gave 129 paper clips to Gerald and 294 paper clips to Tom. Benny then had 184 paper clips left. How many paper clips did Benny buy?

5. The difference between two numbers is 302. If the smaller number is 418, what is the larger number?

*6. A farmer has 740 chickens and ducks. If he has 257 ducks, how many more chickens than ducks are there?

7. A fishmonger sold 137 fish on Friday, 205 fish on Saturday and 492 fish on Sunday. How many fish did he sell altogether?

8. Peter bought 900 straws. After using some straws to weave a basket, he had 82 straws left. How many straws did he use to weave the basket?