

# Preface

**Primary 4 Mastering Maths**, is a series of six books. Topics covered in the book are in alignment with the latest upper Primary Mathematics syllabus by the Ministry of Education, Singapore.

This series is dedicated to help pupils develop mastery of mathematical concepts and applications. Each topic is designed to facilitate focus and targeted revision that develop exam readiness and confidence.

## Special Features

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### ✓ Topical Revision

Each topic consists of questions of varying levels of difficulty and are labelled as:



This scaffolding approach strengthens pupils' conceptual thinking and then progressively helps them to achieve mastery in higher level application questions. Additionally, it also caters to the needs of different learners.

### ✓ Take the Challenge!

Challenging questions deepen the understanding of mathematical concepts, thus enabling the development of mathematical reasoning and higher order thinking skills and gain confidence in using problem-solving strategies.

### ✓ More Challenging Problems

Real-world challenging problems encourage critical thinking and teach pupils to connect real-world situations to the abstract language of Mathematics.

### ✓ Mid-Year and End-Of-Year Revision

Mock exam papers help to provide a better perspective of what kind of questions will appear in exams and help in improving the score in competitive exams.

## Why this Series?

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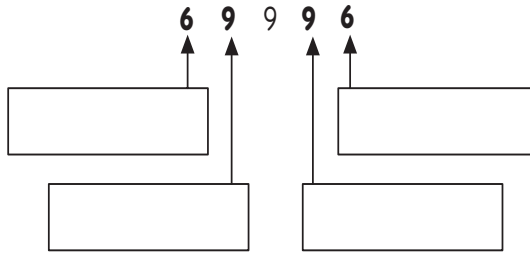
This series is the best complement and supplement to the school text books and workbooks. The sequential learning of math concepts and skills provided by this series of books makes it a valuable resource for teachers, parents and tutors.



# Contents

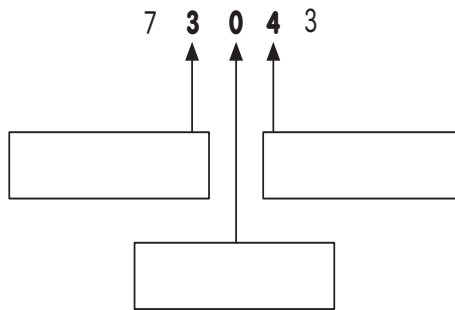
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(b)



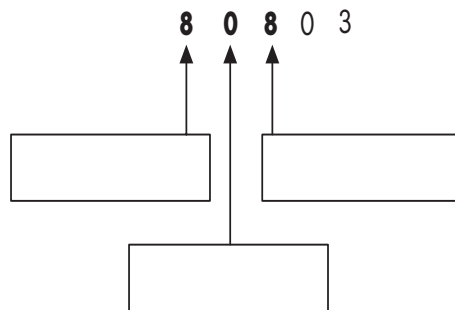
The value of the digit '9' in the tens place is \_\_\_\_\_ less than the value of the digit '9' in the thousands place.

(c)



There are \_\_\_\_\_ tens in the value of the digit '3' in the thousands place.

(d)



There are \_\_\_\_\_ hundreds in the value of the digit '8' in the ten thousands place.

- 14 Round each number to the nearest 10 and then estimate the value of each of the following.

**Example**

$$\begin{array}{ccc} 417 & + & 281 \\ \downarrow & & \downarrow \\ \boxed{420} & + & \boxed{280} = \boxed{700} \end{array}$$

- (a)  $692 + 319 \approx \boxed{\phantom{000}}$       (b)  $8428 + 102 \approx \boxed{\phantom{000}}$
- (c)  $875 - 525 \approx \boxed{\phantom{000}}$       (d)  $1608 - 815 \approx \boxed{\phantom{000}}$
- (e)  $123 + 479 - 305 \approx \boxed{\phantom{000}}$       (f)  $4811 - 98 - 482 \approx \boxed{\phantom{000}}$
- (g)  $2399 - 188 + 795 \approx \boxed{\phantom{000}}$       (h)  $994 + 1215 - 392 \approx \boxed{\phantom{000}}$

- 15 Round each number to the nearest 100 and then estimate the value of each of the following.

**Example**

$$\begin{array}{ccc} 417 & + & 281 \\ \downarrow & & \downarrow \\ \boxed{400} & + & \boxed{300} = \boxed{700} \end{array}$$

- (a)  $692 + 319 \approx \boxed{\phantom{000}}$       (b)  $8428 + 102 \approx \boxed{\phantom{000}}$
- (c)  $875 - 525 \approx \boxed{\phantom{000}}$       (d)  $1608 - 815 \approx \boxed{\phantom{000}}$

- 11 Fill in the missing number in each box.  
You may use the methods learnt in Questions 9 and 10.

(a)  $78 \times 23 = 23 \times 70 +$

(b)  $418 \times 99 = 100 \times 418 -$

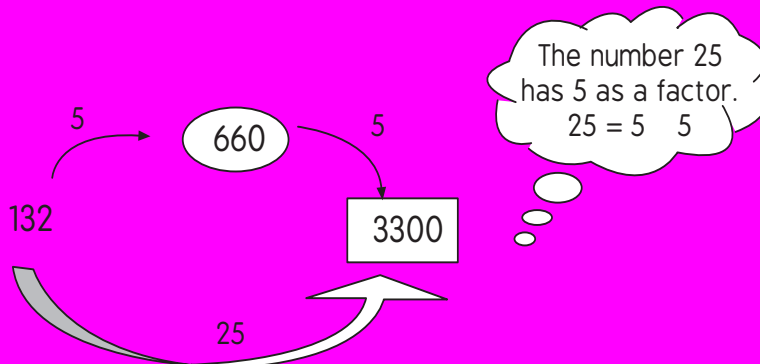
(c)  $200 \times 33 -$    $= 198 \times 33$

(d)  $128 \times 100 +$    $= 102 \times 128$

- 12 Multiply using the Factor and Multiple concept.  
Fill in the missing number in each box.

**Example**

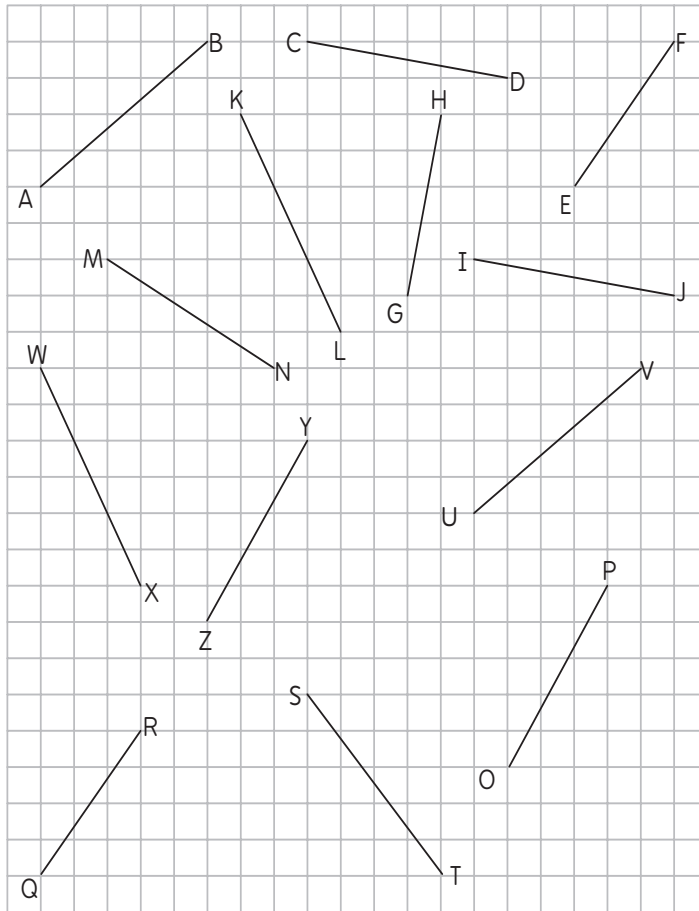
$$132 \times 25 = 660 \times 5$$



(a)  $48 \times 125 =$    $\times 25$

(b)  $32 \times$    $= 25 \times 256$

- 11 List all the pairs of perpendicular lines and all the pairs of parallel lines in the table below.



Perpendicular lines	Parallel lines



# Take the Challenge!



- Using a set-square and a ruler, draw a pair of parallel lines such that one line passes through point P and the other line passes through point Q.

P •

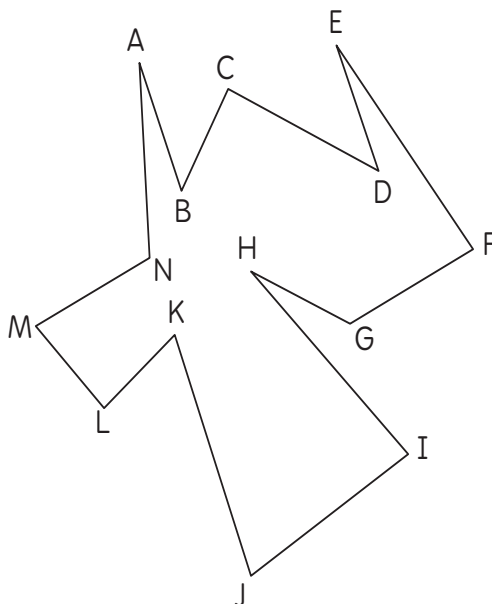
• Q

- Using a set-square and a ruler, draw a pair of perpendicular lines such that one line passes through point P and the other line passes through point Q.

P •

• Q

- Look at the figure.



(a) How many pairs of parallel lines are there? \_\_\_\_\_

(b) How many pairs of perpendicular lines are there? \_\_\_\_\_