

Preface

Primary 6 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

✓ 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?

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.



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5 Fill in the blanks with the correct answers. Simplify your answers where possible.

(a) If the total cost of 3 books is $(3 \times \$4) = \12 ,



then,



(b) the total height of 5 books is $(\text{_____} \times \text{_____ cm}) = \text{_____ cm}$,
and



(c) the total cost of e eggs in the basket is $(\text{_____} \times \text{_____ cents}) = \text{_____ cents}$.

6 (a)

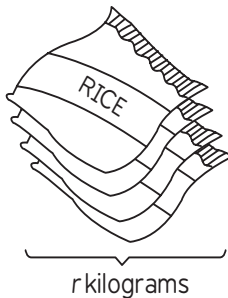


If each cup weighs $(1200 \text{ g} \div 6)$

$$= \frac{1200}{6} \text{ g}$$

$$= 200 \text{ g}$$

(b)



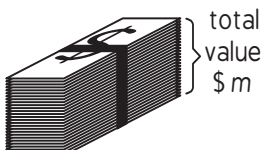
then,

each bag of rice weighs $(\text{_____ kg} \div \text{_____})$

$$= \text{_____ kg},$$

and

(c)



the value of each dollar note is \$ _____ if there are 300 notes in the stack.

Dividing a fraction by a whole number

5 children shared half a cake.

$$\frac{1}{2} \div 5 = \frac{1}{2} \times \frac{1}{5} = \underline{\hspace{2cm}}$$

Each child will get of a cake.

Solve the following questions.

2 (a) $\frac{1}{3} \div 9 = \underline{\hspace{2cm}}$

(b) $\frac{2}{9} \div 14 = \underline{\hspace{2cm}}$

(c) $\frac{3}{4} \div 15 = \underline{\hspace{2cm}}$

(d) $\frac{4}{7} \div 12 = \underline{\hspace{2cm}}$

(e) $\frac{2}{5} \div 16 = \underline{\hspace{2cm}}$

(f) $\frac{1}{8} \div 7 = \underline{\hspace{2cm}}$

(g) $\frac{5}{9} \div 35 = \underline{\hspace{2cm}}$

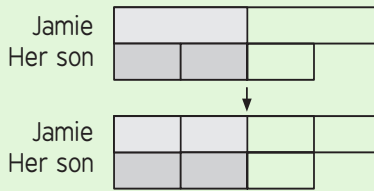
(h) $\frac{4}{11} \div 32 = \underline{\hspace{2cm}}$

(i) $\frac{3}{5} \div 27 = \underline{\hspace{2cm}}$

(j) $\frac{13}{3} \div 52 = \underline{\hspace{2cm}}$

Guided Example

- (a) If $\frac{1}{2}$ of Jamie's height is equal to $\frac{2}{3}$ of her son's height, then, the ratio of her son's height to her height is _____ : _____ and Jamie is _____ as tall as her son.



Ans →

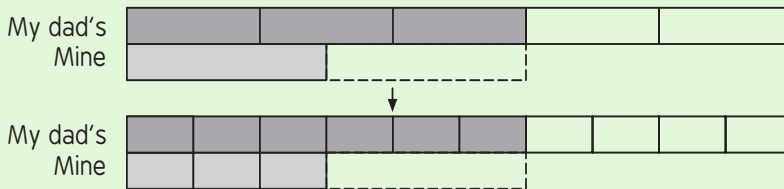
Son's height : Jamie's height

$$3 \text{ u} : 4 \text{ u}$$

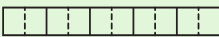
$$\mathbf{3} : \mathbf{4}$$


and Jamie is $\frac{4}{3}$ as tall as her son.

- (b) If $\frac{3}{5}$ of my dad's money is twice of what I have, then, the ratio of my money to my dad's money is _____ : _____ and my money is _____ of my dad's money.



Ans →

Dad's 

Mine 

My money : Dad's money

$$3 \text{ u} : 10 \text{ u}$$

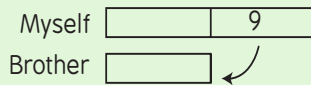
$$\mathbf{3} : \mathbf{10}$$

and my money is $\frac{3}{10}$ of Dad's money.

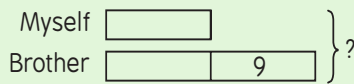
Guided Example

- (a) The ratio of the number of coins collected by me and my brother was 2 : 1. When I gave my brother 9 of my coins, the ratio became 1 : 2. How many coins did we collect altogether?

Ans →



After I gave 9 coins to my brother,



(Hint: Same total before and after)

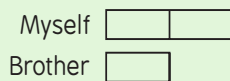
1 unit = 9

Total coins = 3 units ⇒ $3 \times 9 = \mathbf{27 \text{ coins}}$

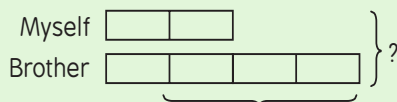
- (b) The ratio of the number of coins collected by me and my brother was 2 : 1. After my brother collected another 9 coins, the ratio became 1 : 2. How many coins did we have altogether in the end?

Ans →

At first,



After my brother collected another 9 coins,



(Hint: The number of my coins did not change)

3 units ⇒ 9

1 unit ⇒ $9 \div 3 = 3$

Total coins = 6 units ⇒ $6 \times 3 = \mathbf{18 \text{ coins}}$