



# Ratio (1): Ratio and Fraction

**Do these sums. Show all your working clearly.**

- (1) There are 32 local stamps and 48 Malaysian stamps in a stamp album.
- (a) Find the ratio of the number of local stamps to the number of Malaysian stamps.
- (b) Find the ratio of the number of Malaysian stamps to the number of local stamps.
- (2) There are 350 pages in book A, 500 pages in book B and 200 pages in book C.
- (a) What is the ratio of the number of pages in book A to the number of pages in book B to the number of pages in book C?
- (b) What is the ratio of the number of pages in book B to the total number of pages in books A, B and C?

(3) The income of Mr Zhen and Mr Huang are in the ratio 4 : 5.

Mr Zhen 

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Mr Huang 

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(a) What fraction of Mr Huang's income is Mr Zhen's income?

Mr Zhen's income is 

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 of Mr Huang's income.

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(b) What fraction of the total income of Mr Zhen and Mr Huang is Mr Huang's income?

Mr Huang's income is 

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 of the total income of Mr Zhen and Mr Huang.

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(4) The ratio of the number of bees to the number of butterflies in a picture is 7 : 3.

bees 

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butterflies 

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(a) Express the number of bees as a fraction of the number of butterflies.

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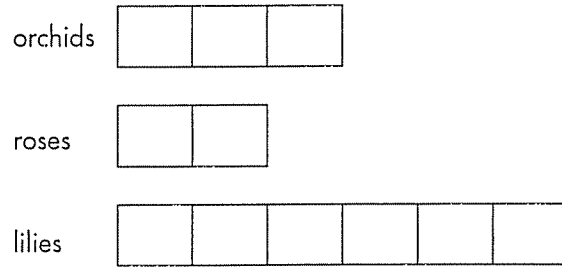
(b) Express the number of butterflies as a fraction of the number of bees.

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(c) Express the number of bees as a fraction of the total number of bees and butterflies.

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- (5) The ratio of the number of orchids to the number of roses to the number of lilies is 3 : 2 : 6.

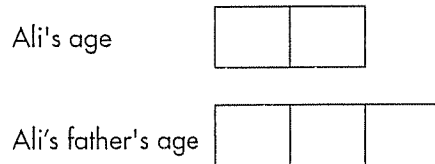


- (a) What is the ratio of the total number of orchids and roses to the number of lilies?

- (b) How many times as many lilies as roses are there?

- (c) Express the number of orchids as a fraction of the number of lilies.

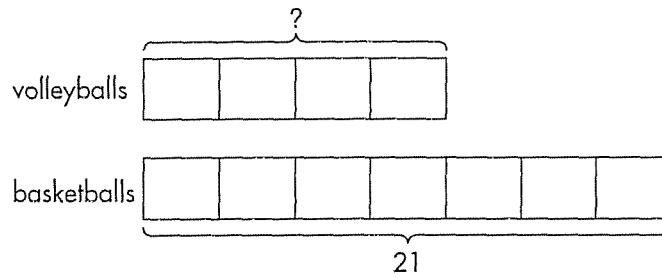
- (6) Ali's age is  $\frac{2}{3}$  of his father's age.



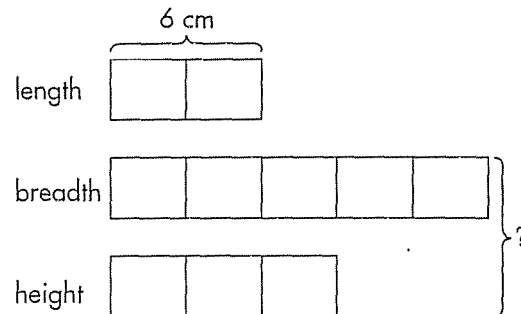
- (a) What is the ratio of Ali's age to his father's age?

- (b) Express Ali's father's age as a fraction of Ali's age.

- (7) The ratio of the number of volleyballs to the number of basketballs in the P.E. room is 4 : 7. There are 21 basketballs. How many volleyballs are there?



- (8) The length, breadth and height of a box are in the ratio 2 : 5 : 3. The length of the box is 6 cm. Find the sum of the breadth and the height of the box.



# ANSWERS

## Exercise 5

- (1) (a) 2 : 3                      (b) 3 : 2  
(2) (a) 7 : 10 : 4                (b) 10 : 21  
(3) (a)  $\frac{4}{5}$                         (b)  $\frac{5}{9}$   
(4) (a)  $\frac{7}{3}$                       (b)  $\frac{3}{7}$                       (c)  $\frac{7}{10}$   
(5) (a) 5 : 6                      (b) 3                      (c)  $\frac{1}{2}$   
(6) (a) 2 : 3                      (b)  $\frac{3}{2}$   
(7) 12                      (8) 24 cm                      (9) 27, 18, 45  
(10) (a) 4 : 5                      (b) 125  
(11)  $14\frac{1}{2}$  kg                      (12) 900 m<sup>2</sup>