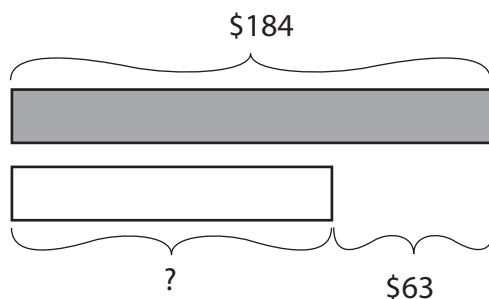


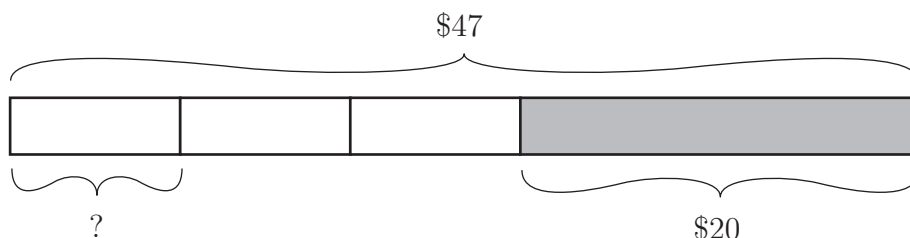
Some Singapore Strip Diagram Problems

Source: Singapore Curriculum Planning and Development Division, Ministry of Education. *Primary Mathematics* volumes 3A – 6B and *Primary Mathematics Workbook*, volumes 3A – 6B. Times Media Private Limited, Singapore, third edition, 2000. Available at <http://www.singaporemath.com>

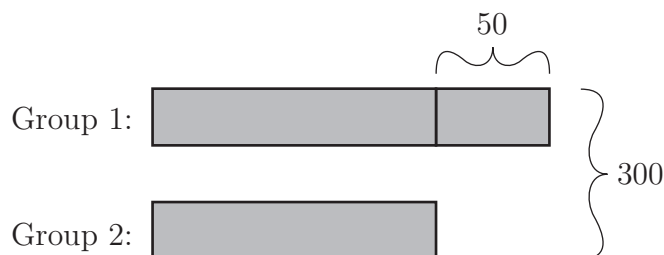
1. Meilin saved \$184. She saved \$63 more than Betty. How much did Betty save? (*Primary Mathematics* volume 3A, page 21, problem 7.)



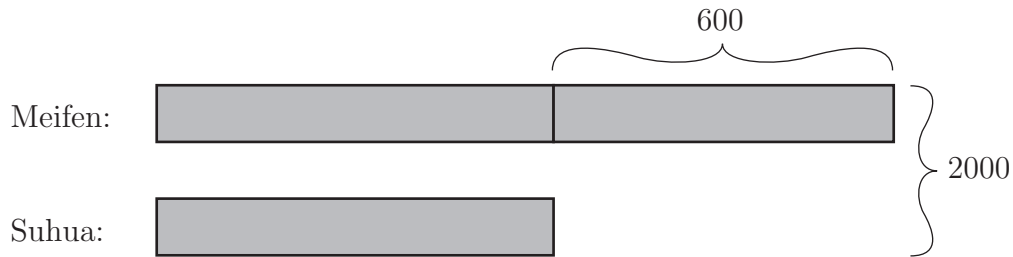
2. Rani had \$47. After paying for 3 kg of prawns, she had \$20 left. Find the cost of 1 kg of prawns. (From *Primary Mathematics Workbook*, volume 3A, part 1, page 55.)



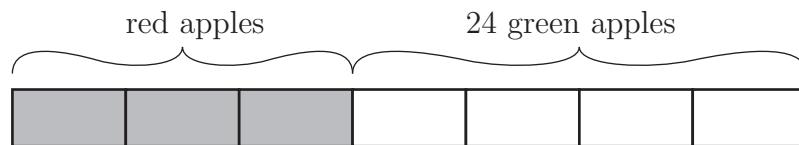
3. 300 children are divided into two groups. There are 50 more children in the first group than in the second group. How many children are there in the second group? (From *Primary Mathematics*, volume 4A, page 40.)



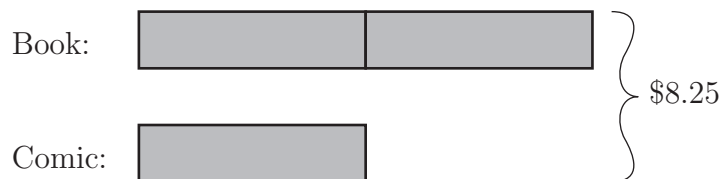
4. Meifen and Suhua have 2000 stickers altogether. If Meifen has 600 more stickers than Suhua, how many stickers does Meifen have? (From Primary Mathematics Workbook volume 4A part one, p. 62.)



5. $\frac{3}{7}$ of the apples in a box are red apples. The rest are green apples. There are 24 green apples. How many apples are there altogether? (From Primary Mathematics volume 5A, p. 60.)



6. Ailin paid \$8.25 for a book and a comic. The book cost twice as much as the comic. Find the cost of the book. (From Primary Mathematics volume 4B, p. 62.)



7. The difference between two numbers is 2184. If the bigger number is 3 times the smaller number, find the sum of the two numbers. (From Primary Mathematics volume 4A, p. 40.)
8. After spending $\frac{3}{5}$ of his money on a badminton racket, Ahmad had \$14 left. How much did the badminton racket cost? (From Primary Mathematics Workbook volume 4B part 2, p. 59.)
9. Mr Li gave $\frac{1}{4}$ of a sum of money to his wife. Then he divided the remainder equally among his 4 children. If each child received \$600, find the sum of money. (From Primary Mathematics volume 5A, p. 60.)
10. 3000 exercise books are arranged into 3 piles. The first pile has 10 more books than the second pile. The number of books in the second pile is twice the number of books in the third pile. How many books are there in the third pile? (From Primary Mathematics volume 4A, p. 41.)
11. David spent $\frac{2}{5}$ of his money on a storybook. The storybook cost \$20. How much money did he have at first? (From Primary Mathematics volume 4A, p. 62.)
12. After spending $\frac{2}{5}$ of his money on a toy car, Samy had \$42 left. How much money did he have at first? (From Primary Mathematics volume 5A, p. 60.)
13. When a bottle is $\frac{1}{2}$ filled with water, it weighs 2.6 kg. The bottle weighs 4 kg when it is full. Find the weight of the empty bottle. (From Primary Mathematics volume 6B, p. 64.)
14. 1650 pupils took part in a parade. There were twice as many boys as girls. How many boys were in the parade? (From Primary Mathematics Workbook volume 4B part 1, p. 38.)
15. Mrs Chen bought some eggs. She used $\frac{1}{2}$ of them to make tarts and $\frac{1}{4}$ of the remainder to make a cake. She had 9 eggs left. How many eggs did she buy? (From Primary Mathematics volume 5A, p. 60.)
16. 2500 people took part in a cross-country race. The number of adults were 4 times the number of children. If there were 1200 men, how many women were there? (From Primary Mathematics Workbook volume 4A part 1, p. 62.)
17. A piece of rope 3 m 66 cm long was cut into 2 pieces. The longer piece was twice as long as the shorter piece. What was the length of the longer piece? (From Primary Mathematics volume 4B, p. 73.)
18. $\frac{2}{3}$ of a sum of money is \$18. Find the sum of money. (From Primary Mathematics volume 4B, p. 100.)
19. A hawker sold $\frac{2}{3}$ of his curry puffs in the morning and $\frac{1}{6}$ in the afternoon. He sold 200 curry puffs altogether. How many curry puffs had he left? (From Primary Mathematics volume 5A, p. 60.)
20. Minghua bought a bag of marbles. $\frac{1}{4}$ of the marbles were blue, $\frac{1}{8}$ were green and $\frac{1}{5}$ of the remainder were yellow. If there were 24 yellow marbles, how many marbles did he buy? (From Primary Mathematics volume 5A, p. 60.)
21. Ali saved twice as much as Ramat. Maria saved \$60 more than Ramat. If they saved \$600 altogether, how much did Maria save? (From Primary Mathematics volume 5A, p. 90.)

22. $\frac{1}{3}$ of the beads in a box are red, $\frac{2}{3}$ of the remainder are blue and the rest are yellow. If there are 24 red beads, how many yellow beads are there? (From Primary Mathematics volume 6B, p. 34.)
23. David cuts a rope 60 m long into two pieces in the ratio 2 : 3. What is the length of the shorter piece of rope? (From Primary Mathematics volume 5A, p. 79.)
24. The ratio of Samy's weight to John's weight is 6 : 5. If Samy weighs 48 kg, find John's weight. (From Primary Mathematics volume 5A, p. 79.)
25. The ratio of the number of boys to the number of girls is 2 : 5. If there are 100 boys, how many children are there altogether? (From Primary Mathematics volume 5A, p. 79.)
26. Susan and Sally had an equal amount of money each. After Sally spend \$15 and Susan spent \$24, the ratio of Sally's money to Susan's money was 4 : 3. How much money did each girl have at first? (From Primary Mathematics volume 6A, p. 38.)
27. The ratio of the number of Meili's books to Sulin's was 1 : 2 at first. After Meili bought another 12 books, the ratio became 2 : 1.
- (a) How many books did Sulin have?
- (b) If Sulin buys another 5 books, what will be the new ratio of the number of Meili's books to Sulin's? (From Primary Mathematics volume 6A, p. 38.)
28. There are 10% more boys than girls in a choir. If there are 4 more boys than girls, how many children are there altogether? (From Primary Mathematics volume 6A, p. 67.)
29. 60% of the books in a library are for adults, 5% are for young people and the rest are for children. If there are 280 books for children, how many books are there altogether? (From Primary Mathematics volume 6A, p. 67.)
30. At a sale, Mrs Li bought a fan for \$140. This was 70% of its usual price. What was the usual price of the fan? (From Primary Mathematics volume 6A, p. 67.)
31. Rahim has 30% more books than Gopal. If Rahim has 65 books, how many books does Gopal have? (From Primary Mathematics volume 6B, p. 64.)
32. John and Mary had \$350 altogether. After John spent $\frac{1}{2}$ of his money and Mary spent $\frac{1}{3}$ of her money, they each had an equal amount of money left. How much did they spend altogether? (From Primary Mathematics volume 6B, p. 58.)
33. If $\frac{2}{3}$ of a number is 12, what is the value of $\frac{1}{2}$ of the number? (From Primary Mathematics volume 6B, p. 63.)
34. 10 glasses of water can fill $\frac{5}{8}$ of a bottle. How many *more* glasses of water are needed to fill up the bottle? (From Primary Mathematics volume 6B, p. 63.) Solve this problem and explain your solution.