

101



> Must-Know
**Challenging
Maths
Word Problems**

Book

1

Based on current Primary Mathematics Syllabus

- Improves student's ability to solve challenging word problems
- Encourages critical thinking
- Various problem-solving strategies revealed
- Step-by-step solutions provided

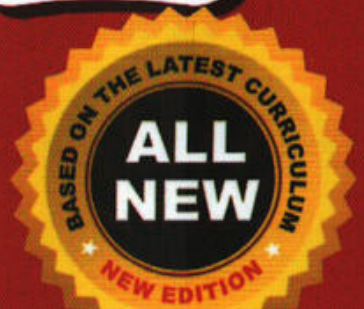


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- Solve mathematics problems using bar models



101



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**Challenging
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Book

1

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Name: _____

Class: _____

Preface

101 Must-Know Challenging Maths Word Problems Book 1 presents word problems that test on important concepts so students can learn to **apply general mathematical problem-solving strategies and heuristics confidently.**

What's in this book?

This book comprises word problems often encountered by students in their tests and examinations. The questions are categorized into respective topics in accordance with the current **Primary Mathematics Syllabus.**

Solutions

Detailed step-by-step workings are included in the answer key for every question to show how a problem is solved. **Diagrams and mathematical models** are provided in most solutions to aid students in understanding the problem-solving processes.



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Learn to solve mathematics problems with bar models. This helps students to develop and hone creative and critical thinking skills.

The Editorial Team

Contents

Question Number	Learning Objective	Page Number
1 ~ 14	Addition within 100 	1 ~ 5
15 ~ 26	Subtraction within 100 	5 ~ 9
27 ~ 30	Multiplication	9 ~ 10
31 ~ 34	Division	11 ~ 12
35 ~ 70	Addition and Subtraction within 100	12 ~ 24
71 ~ 76	Addition and Multiplication within 100	24 ~ 26
77 ~ 80	Addition and Division within 100	26 ~ 27
81 ~ 90	Subtraction and Multiplication within 100	27 ~ 30
91 ~ 94	Subtraction and Division within 100	31 ~ 32
95 ~ 97	Multiplication and Division within 100 	32 ~ 33
98 ~ 101	2-part Word Problems (involving two operations)	33 ~ 34
Solutions to Questions 1 ~ 101 S1 ~ S41		

Question

Tom has 18 oranges. Mary has 17 oranges. How many oranges do they have altogether?

**1**

They have _____ oranges altogether.

Question

Peter has 24 stickers. Jane has 9 stickers more than him. How many stickers do they have altogether?

**2**

They have _____ stickers altogether.

Question

Mr Adam has some eggs. He sells 24 eggs in the morning and 10 eggs in the afternoon. He has 25 eggs left. How many eggs does he have at first?

**3**

He has _____ eggs at first.

Question

There are 8 boys and 6 girls in class A and 12 students in class B. How many students are there in the two classes?

**4**

There are _____ students in the two classes.

Question

Peter has some paperclips. He uses 15 of them and gives 6 paperclips to his sister. He has 17 paperclips left. How many paperclips does he have at first?

**5**

He has _____ paperclips at first.

Question

Tom has 28 balloons. Jim has 23 balloons more than him. How many balloons do they have altogether?

**6**

They have _____ balloons altogether.

Question

Ann has some apples. She sells 28 apples and has 15 apples left. How many apples does she have at first?

7

She has _____ apples at first.

Question

John buys 21 yellow paperclips and 10 more green paperclips than yellow paperclips. Sean buys 15 paperclips more than John. How many paperclips does Sean buy?

8

Sean buys _____ paperclips.

Question

There are 11 green balls in a basket. Peter puts 15 orange balls and 21 purple balls into the basket. How many balls are there in the basket altogether?

9

There are _____ balls in the basket altogether.

Question

A florist sells 26 orchids, 32 carnations and 18 roses. How many flowers does she sell altogether?

**10**

She sells _____ flowers altogether.

Question

There are 9 apples in a basket. Another 12 red apples and 16 green apples are put into the basket. How many apples are there altogether?

**11**

There are _____ apples altogether.

Question

Jack sells 24 charity tickets. He sells 17 charity tickets fewer than Mary. How many charity tickets do they sell altogether?

**12**

They sell _____ charity tickets altogether.

Question

A shirt costs \$41. A pair of pants costs \$12 more than the shirt. How much do the shirt and the pair of pants cost altogether?

13

The shirt and the pair of pants cost \$_____ altogether.

Question

A magazine costs \$5 more than a book. The magazine costs \$9. What is the cost of 3 such books?

14

The cost of 3 such books is \$_____.

Question

Jack has 26 balloons. Linda has 55 balloons. How many more balloons must Jack buy so that he will have the same number of balloons as Linda?

15

Jack must buy_____ more balloons.



Here's a quick introduction to the comparison model for solving similar problems.
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Question

When a number is subtracted from another, the answer is 12. If the bigger number is 17, what is the smaller number?

16

The smaller number is _____

Question

Mr Cook buys 17 tickets for a concert. He gives 5 tickets to his friends and uses the rest of the tickets to take his family to the concert. How many people are there in Mr Cook's family?

17

There are _____ people in Mr Cook's family.

Question

Alice has 23 stamps. She gives her mother 15 stamps. How many stamps does she have in the end?

18

She has _____ stamps in the end.

Question

13 more than a number is 38. What is the number?

19

The number is _____.

Question

There are 72 people at a party. 20 of them are children and the rest are adults. How many more adults than children are there?

20

There are _____ more adults than children.

Question

There are 38 soldiers in a field. 15 of them wear green uniforms and the rest wear brown uniforms. How many more soldiers wear brown uniforms than green uniforms?

21

_____ more soldiers wear brown uniforms than green uniforms.

Question

When two numbers are added together, the answer is 30. If one of the numbers is 12, what is the other number?

22

The other number is _____.

Question

A watch and a clock cost \$68 at a sale. The watch costs \$39. How much more does the watch cost than the clock?

23

The watch costs \$ _____ more than the clock.

Question

Jim has \$80. Linda has \$36. How much more money does Jim have than Linda?

24

Jim has \$ _____ more than Linda.



Question

Mary buys a toaster for \$38. She gives the cashier \$50. How much change does she get?

25

She gets \$_____ in change.

Question

Tim has \$95. He spends \$26 and saves the rest of his money. How much does he save?

26

He saves \$_____.

Question

There are 8 boy scouts in a group. Each boy scout has 3 badges. How many badges do they have altogether?

27

They have _____ badges altogether.



Solve these using bar models.

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Question

Peter drinks 2 glasses of milk a day. How many glasses of milk does he drink in a week?

28

He drinks _____ glasses of milk in a week.

Question

Alice puts 8 stamps on every page of her stamp album. There are 5 pages in her album. How many stamps does she have altogether?

29

She has _____ stamps altogether.

Question

There are 6 flowers in a bouquet. Betty buys 3 such bouquets. How many flowers does she buy altogether?

30

She buys _____ flowers altogether.

Question

Mrs Wood bakes 18 cakes. She puts them equally into 3 boxes. How many cakes are there in each box?

31

There are _____ cakes in each box.

Question

Andrew reads 4 pages of a book a day. How many days will he take to finish reading a 32-page book?

32

He will take _____ days to finish reading a 32-page book.

Question

Mr Cook buys a dozen eggs. He puts them equally into 4 bags. How many eggs are there in each bag?

33

There are _____ eggs in each bag.

Question

A packet of tomatoes costs \$2. Mrs Fay has \$10. How many packets of tomatoes can she buy with all her money?

34

She can buy _____ packets of tomatoes with all her money.

Question

Mrs Drew buys 30 sweets. She gives 12 sweets to her daughter and 15 sweets to her son. How many sweets has she left?

35

She has _____ sweets left.

Question

There are 22 flowers in a vase. 9 of them are red, 6 are yellow and the rest are pink. How many pink flowers are there in the vase?

36

There are _____ pink flowers in the vase.

Question**37**

Mrs Jones bakes 35 cookies. There are 8 butter cookies, some chocolate chip cookies and 12 coconut cookies. How many chocolate chip cookies does she bake?

She bakes _____ chocolate chip cookies.

Question**38**

Mrs Drew bakes 16 apple pies and 28 lemon pies on Monday. On Tuesday, she bakes 12 lemon pies. How many more lemon pies than apple pies does she bake in the end?

She bakes _____ more lemon pies than apple pies.

Question**39**

There are 20 boys and 10 girls in class A. There are 18 boys and 24 girls in class B. How many fewer girls than boys are there in both classes altogether?

There are _____ fewer girls than boys altogether.

Question**40**

There are 34 peanuts and 12 walnuts on a plate. After Tom has eaten some of the nuts, there are 17 nuts left. How many nuts does Tom eat?

Tom eats _____ nuts.

Question**41**

Joe has some marbles. He receives 18 marbles from his father and 13 marbles from his brother. He has 40 marbles in the end. How many marbles does he have at first?

He has _____ marbles at first.

Question**42**

When 12 is added to a number, the result is 2 more than 31. What is the number?

The number is _____.

Question**43**

A farmer has 34 eggs. He throws away 8 rotten eggs and sells 7 eggs. He keeps the rest. How many more eggs does he keep than sell?

He keeps _____ more eggs than the number of eggs he sells.

Question**44**

There are 54 pages in a book. Mary reads 13 pages on Monday and 8 pages on Tuesday. How many pages are not read yet?

_____ pages are not read yet.

Question**45**

There are 18 boys and 21 girls in a field. A teacher has 31 balls. She gives each of them a ball. How many children will not have a ball?

_____ children will not have a ball.

Question**46**

Peter scores 45 points in a game. Alex scores 6 points fewer than him. How many points do they score altogether?

They score _____ points altogether.

Question**47**

There are 26 batteries in a box. Thomas uses 7 batteries for his toy car and 12 batteries for a torch. How many batteries are left in the box?

_____ batteries are left in the box.

Question**48**

Jack, Anna and Tom have 70 marbles. Jack has 24 marbles. Anna has 12 marbles more than him. How many marbles does Tom have?

Tom has _____ marbles.

Question

There are 38 roses in a vase. 12 of them are red, 10 are pink and the rest are white. How many white roses are there?

49

There are _____ white roses.

Question

Mr Smith wants to buy 60 pieces of fruit. He buys 18 apples and 19 bananas at the market. How many more pieces of fruit does he need to buy?

50

He needs to buy _____ more pieces of fruit.

Question

There are 26 boys and 15 girls in a class. 17 children wear spectacles. How many children do not wear spectacles?

51

_____ children do not wear spectacles.

Question

Mrs Owen has 20 cookies. She gives 7 cookies each to her two friends. How many cookies has she left?

52

She has _____ cookies left.

Question

Jane has 35 stickers. She gives 12 stickers to Sam. William gives Jane 13 stickers. How many stickers does Jane have in the end?

53

Jane has _____ stickers in the end.

Question

There are 45 books on a shelf. 12 of them are English books, 7 are science books and the rest are mathematics books. How many mathematics books are there?

54

There are _____ mathematics books.

Question**55**

There are 54 pink ribbons in a box. There are 15 fewer red ribbons than pink ribbons in the box. How many ribbons are there altogether?

There are _____ ribbons altogether.

Question**56**

There are 40 fish in a tank. 16 of them are orange, 11 are red and the rest are white. How many white fish are there?

There are _____ white fish.

Question**57**

There are 26 red apples and 12 green apples in box A. There are 20 red apples and 10 green apples in box B. How many more apples are there in box A than in box B?

There are _____ more apples in box A than in box B.

Question**58**

Joel has some toy cars. His mother gives him 18 toy cars and his father gives him another 8 toy cars. He has 41 toy cars altogether. How many toy cars does he have at first?

He has _____ toy cars at first.

Question**59**

Peter has \$20. He spends \$4 on Monday and \$8 on Tuesday. How much has he left?

He has \$_____ left.

Question**60**

Tom has 28 toy aeroplanes. 12 of them are red, 5 are green and the rest are blue. How many more blue toy aeroplanes than green toy aeroplanes does he have?

He has _____ more blue toy aeroplanes than green toy aeroplanes.

Question

There are 35 adults and 28 children at a party. After 3 men and 17 girls leave the party, how many people are left at the party?

61

There are _____ people left.

Question

A dinner costs \$100. Mr William pays \$35, Mr Jackson pays \$40 and Mr Lee pays the rest. How much does Mr Lee pay?

62

Mr Lee pays \$ _____.

Question

There are 80 students in an art competition. 15 of them are in Primary 1, 12 are in Primary 2 and the rest are in Primary 3. What is the total number of Primary 1 and Primary 3 students in the competition?

63

The total number of Primary 1 and Primary 3 students in the competition is _____.

Question**64**

Ben has \$30. He spends \$5 on food, \$9 on books and some on stationery. He has \$8 left. How much does he spend on stationery?

He spends \$_____ on stationery.

Question**65**

John has \$7. Betty has \$2 more than John. Peter has \$6 less than Betty. How much do they have altogether?

They have \$_____ altogether.

Question**66**

An apple costs 60 cents. An orange costs 20 cents less than the apple. A pear costs 40 cents more than the orange. How much does the pear cost?

The pear costs _____ cents.

Question

A dress costs \$24. It costs \$16 more than a blouse. What is the total cost of the dress and the blouse?

67

The total cost of the dress and the blouse is \$_____.

Question

There are 46 orchids in a vase. There are 28 more orchids than roses in the vase. How many flowers are there altogether?

68

There are _____ flowers altogether.

Question

A photo album contains 24 photographs. Jack takes out 8 photographs and puts in 15 new ones. How many photographs are in the photo album in the end?

69

There are _____ photographs in the photo album in the end.

Question

There are 14 pink flowers and 12 red flowers in a shop. 7 flowers are sold. How many flowers are left?

70

There are _____ flowers left.

Question

There are 3 red pens and 2 blue pens in a box. How many pens are there in 5 such boxes?

71

There are _____ pens in 5 such boxes.

Question

Mrs Rice has 3 boxes of cookies. There are 5 cookies in each box. Her friend gives her another 12 cookies. How many cookies does Mrs Rice have altogether?

72

Mrs Rice has _____ cookies altogether.

Question**73**

In a hall, there are 3 rows of children. There are 7 children in each row. Another 5 children arrive at the hall. How many children are there altogether?

There are _____ children altogether.

Question**74**

There are 4 bags of oranges. Each bag has 8 oranges. There are 3 bags of apples. Each bag has 5 apples. How many pieces of fruit are there altogether?

There are _____ pieces of fruit altogether.

Question**75**

Mr Baker buys some eggs. He cooks 12 of them, throws away 6 rotten ones and packs the rest into 2 bags. Each bag has 3 eggs. How many eggs does he have at first?

He has _____ eggs at first.

Question

There are 5 blue crayons and 6 purple crayons in a box. There are 3 boxes. How many crayons are there altogether?

**76**

There are _____ crayons altogether.

Question

Mr Bell has 18 apples. He shares the apples equally with his 2 friends. How many apples does each of them get?

**77**

Each of them gets _____ apples.

Question

Ben has 8 coins. Lucy has 4 coins. They divide their coins equally between themselves. How many coins does each of them get?

**78**

Each of them gets _____ coins.

Question**79**

There are 12 chicken eggs and 6 quail eggs in a basket. All the eggs are packed equally into 3 packets. How many eggs are there in each packet?

There are _____ eggs in each packet.

Question**80**

2 books cost \$10 and 3 pens cost \$6. How much does Peter spend if he buys a book and a pen?

Peter spends \$_____ if he buys a book and a pen.

Question**81**

There are 11 children in a room. 3 of them do not have hats. The rest of the children have 2 hats each. How many hats do they have altogether?

They have _____ hats altogether.

Question**82**

Janet buys 4 packets of balloons. There are 5 balloons in each packet. She uses 2 packets. How many balloons has she left?

She has _____ balloons left.

Question**83**

Mary has \$15. She buys a chocolate cake and has \$7 left. How much do 2 such chocolate cakes cost?

2 such chocolate cakes cost \$ _____.

Question**84**

Mr Brown has 4 bags. There are 9 oranges in each bag. He gives 15 oranges to his friend. How many oranges has he left?

He has _____ oranges left.

Question**85**

A stalk of rose costs \$5. A florist sells 3 stalks of roses and some stalks of orchids. She collects \$27. How much money does she collect from selling the orchids?

She collects \$ _____ from selling the orchids.

Question**86**

2 chairs and a table cost \$50. A chair costs \$8. What is the cost of the table?

The cost of the table is \$ _____.

Question**87**

4 children have 5 buns each. Each child eats 2 buns. How many buns are there left?

There are _____ buns left.

Question**88**

Mrs Taylor has 10 boxes of egg tarts. There are 4 egg tarts in a box. She gives 6 boxes of egg tarts to her friends. How many egg tarts has Mrs Taylor left?

Mrs Taylor has _____ egg tarts left.

Question**89**

There are 7 bunches of balloons. Each bunch has 3 balloons. 15 of the balloons are green and the rest are blue. How many blue balloons are there?

There are _____ blue balloons.

Question**90**

A pencil costs 90 cents. An eraser costs 60 cents less. Jim wants to buy 3 erasers. How much does he have to pay?

He has to pay _____ cents for 3 erasers.

Question**91**

Peter has \$20. He buys a vase for \$11. The cashier gives him a five-dollar note and some two-dollar notes in change. How many two-dollar notes does the cashier give him?

The cashier gives him _____ two-dollar notes.

Question**92**

Alice packs 12 buns equally into 3 bags. In each bag, there are 1 raisin bun and some butter buns. How many butter buns are there in each bag?

There are _____ butter buns in each bag.

Question**93**

Mary has 12 apples. George has 6 apples. How many apples must Mary give to George so that they have an equal number of apples?

Mary must give George _____ apples.

Question**94**

Daniel has 40 stickers. Kate has 22 stickers. How many stickers must Daniel give to Kate so that they have equal number of stickers?

He must give Kate _____ stickers.

Question**95**

Peter has 90 cents in his wallet. He has 5 ten-cent coins and some twenty-cent coins. How many twenty-cent coins does he have?

He has _____ twenty-cent coins.

Question**96**

There are 20 marbles in a bag. Sam divides them equally into 4 groups. How many marbles are there in 2 such groups?

There are _____ marbles in 2 such groups.



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Question

There are 6 oranges in a bag. A bag of oranges costs \$3. Mrs Cook has \$15. How many oranges can she buy altogether?

97

She can buy _____ oranges altogether.

Question

Mrs Scoff has some cookies. She buys 15 cookies. She has 65 cookies in the end.

98

- (a) How many cookies does she have at first?
- (b) How many cookies does she have altogether if she buys another 25 cookies?

- (a) She has _____ cookies at first.
- (b) She has _____ cookies altogether.

Question

Mr Adam spends \$70 on a belt and saves the rest of his money. If he saves \$12,

99

- (a) how much more does he spend than save?
- (b) how much money does he have at first?

- (a) He spends \$ _____ more than he saves.
- (b) He has \$ _____ at first.

Question**100**

A plate costs \$8 more than a bowl. If the plate costs \$23,

- (a) how much does the bowl cost?
- (b) what is the total cost of the plate and the bowl?

(a) The bowl costs \$_____.

(b) The total cost of the plate and the bowl is \$_____.

Question**101**

There are 40 chickens and 13 ducks on a farm. The farmer buys another 14 chickens.

- (a) How many more chickens than ducks are there on the farm?
- (b) How many chickens and ducks are there altogether?

(a) There are _____ more chickens than ducks on the farm.

(b) There are _____ chickens and ducks altogether.

101



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Solutions

Book

1

Solution to Question 1

1

Method 1 :

Draw diagrams and count the total number of oranges

Count the objects

Tom

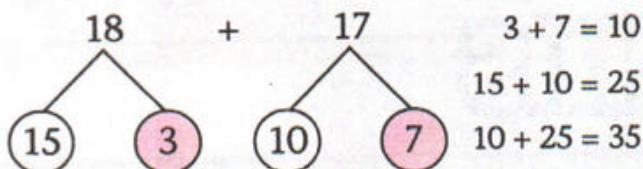


Mary



Method 2 :

Use number bonds to find the total number of oranges



$$\boxed{18} + \boxed{17} = \boxed{35}$$

They have 35 oranges altogether.

Solution to Question 2

2

Method 1 :

Draw diagrams and count the total number of stickers

Count the stickers

Peter



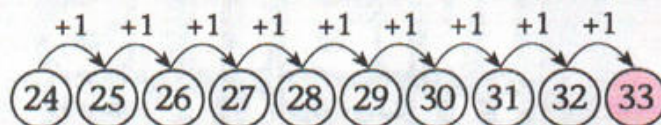
Jane



57

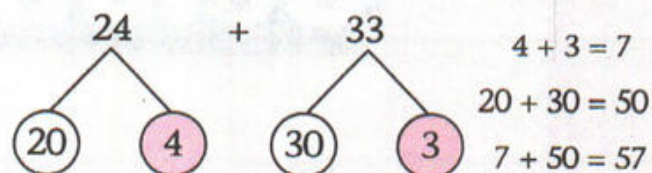
Method 2 :

Step 1 : Use 'counting on' method to find the number of stickers Jane has



$$\boxed{24} + \boxed{9} = \boxed{33}$$

Step 2 : Use number bonds to find the number of stickers they have altogether

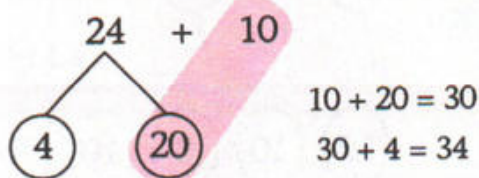


$$\boxed{24} + \boxed{33} = \boxed{57}$$

They have 57 stickers altogether.

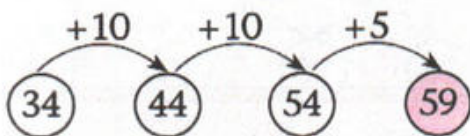
Solution to Question 3

Step 1 : Use number bonds to find the total number of eggs he has sold



$$\boxed{24} + \boxed{10} = \boxed{34}$$

Step 2 : Use 'counting on' method to find the number of eggs he has at first



$$\boxed{34} + \boxed{25} = \boxed{59}$$

He has 59 eggs at first.

Solution to Question 4

Method 1 :

Draw diagrams and count the number of students

Class A

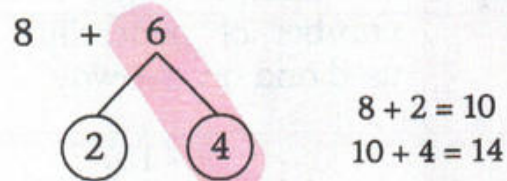


Class B



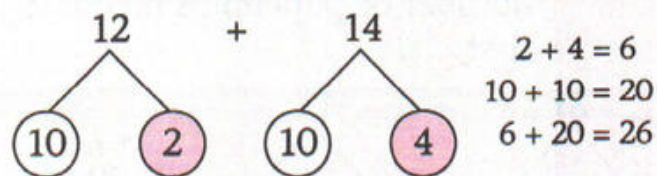
Method 2 :

Step 1 : Use number bonds to find the number of students in class A



$$\boxed{8} + \boxed{6} = \boxed{14}$$

Step 2 : Use number bonds to find the number of students in the two classes



$$\boxed{12} + \boxed{14} = \boxed{26}$$

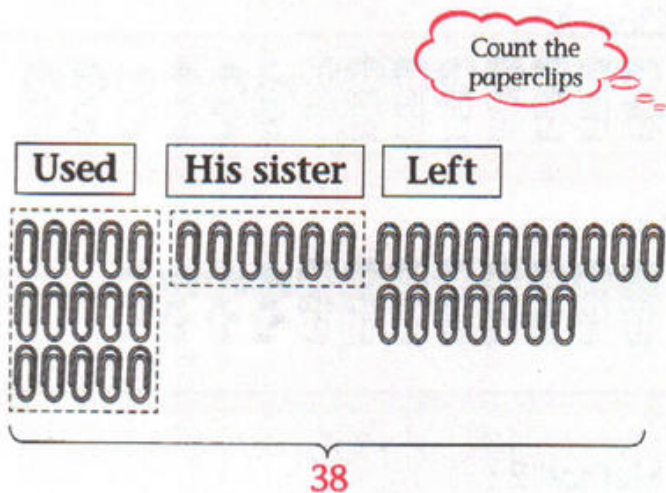
There are 26 students in the two classes.

Solution to Question 5

5

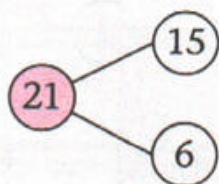
Method 1 :

Draw diagrams and count the total number of paperclips



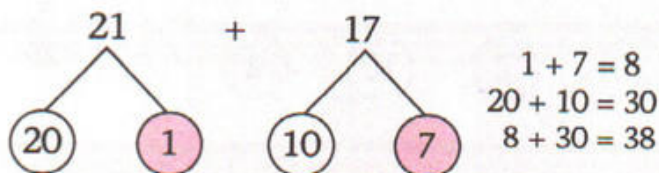
Method 2 :

Step 1 : Use number bonds to find the number of paperclips he has used and given away



$$15 + 6 = 21$$

Step 2 : Use number bonds to find the number of paperclips he has at first



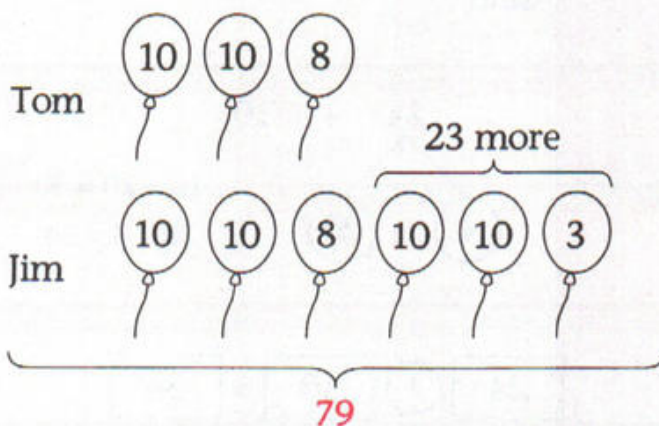
$$21 + 17 = 38$$

He has 38 paperclips at first.

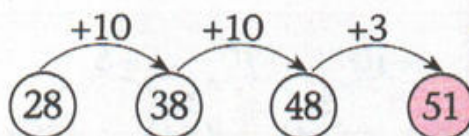
Solution to Question 6

6

Step 1 : Draw diagrams and count the balloons

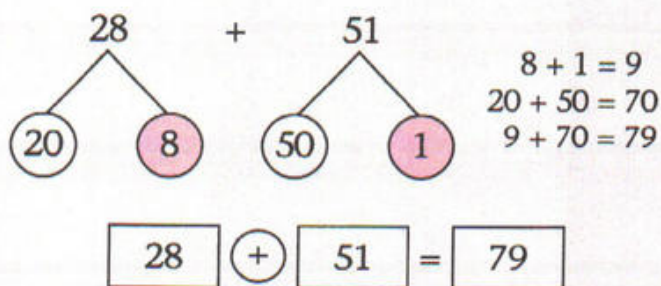


Step 2 : Use 'counting on' method to find the number of balloons Jim has



$$28 + 20 + 3 = 51$$

Step 3 : Use number bonds to find the number of balloons they have altogether



They have 79 balloons altogether.

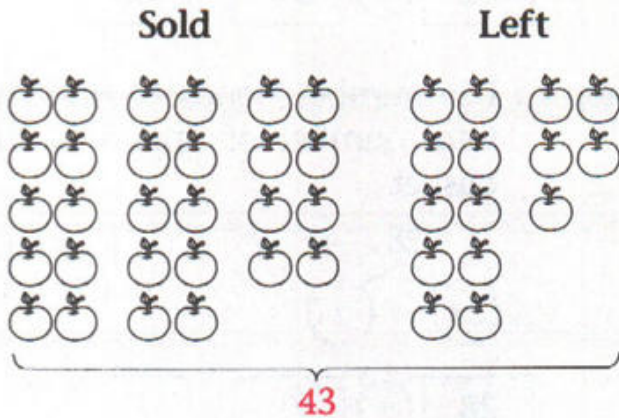
Solution to Question 7

7

Method 1 :

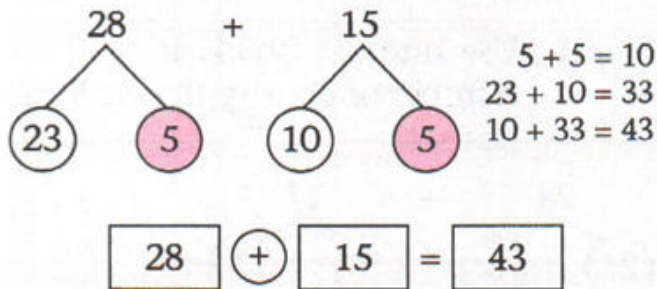
Draw diagrams and count the total number of apples

Count all the apples



Method 2 :

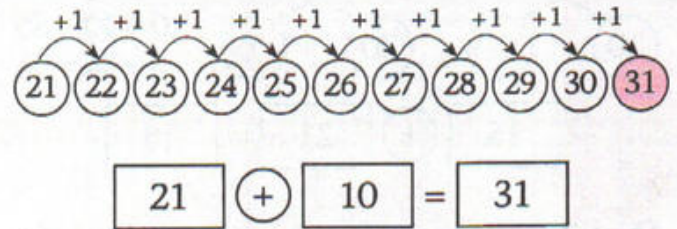
Use number bonds to find the total number of apples at first



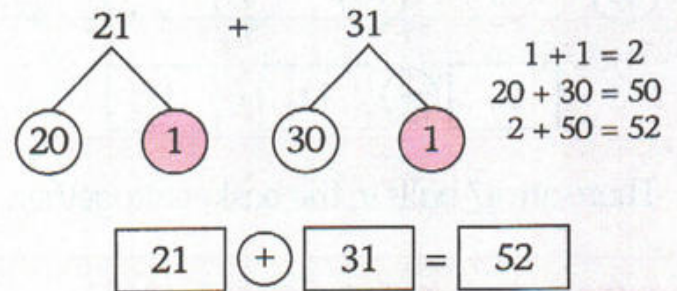
Solution to Question 8

8

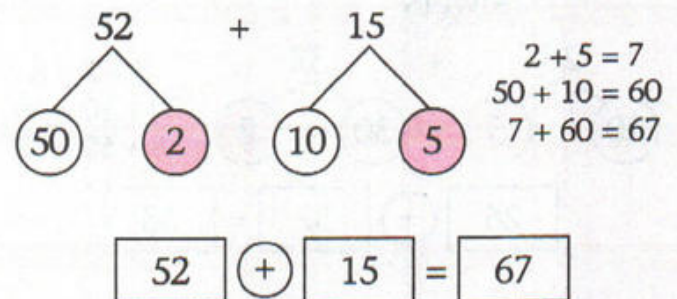
Step 1 : Use 'counting on' method to find the number of green paperclips John has



Step 2 : Use number bonds to find the total number of paperclips John has



Step 3 : Use number bonds to find the number of paperclips Sean has



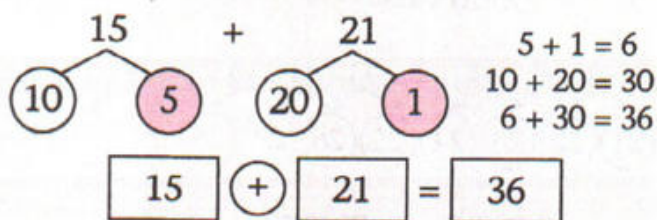
She has 43 apples at first.

Sean buys 67 paperclips.

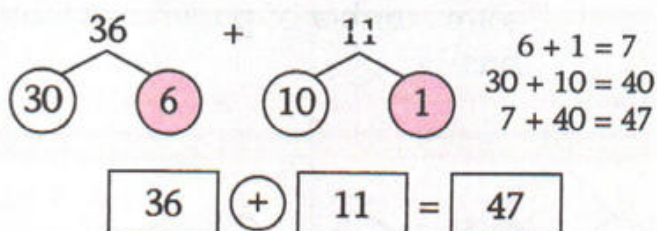
Solution to Question 9

9

Step 1 : Use number bonds to find the total number of balls he puts into the basket



Step 2 : Use number bonds to find the total number of balls in the basket

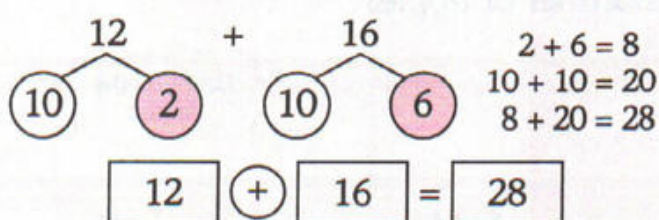


There are 47 balls in the basket altogether.

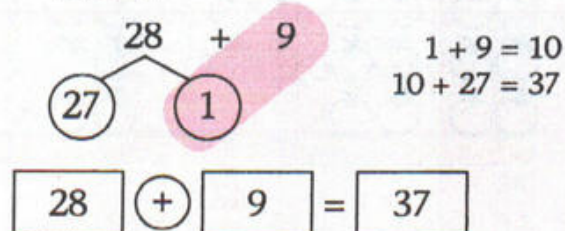
Solution to Question 11

11

Step 1 : Use number bonds to find the number of apples that are put into the basket



Step 2 : Use number bonds to find the total number of apples in the basket

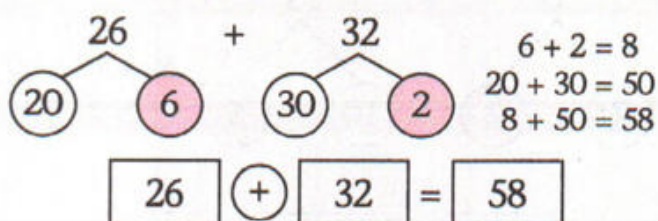


There are 37 apples altogether.

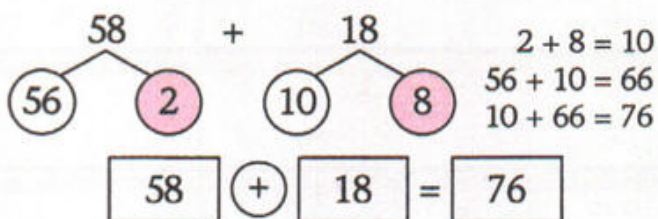
Solution to Question 10

10

Step 1 : Use number bonds to find the total number of two types of flowers



Step 2 : Use number bonds to find the total number of three types of flowers

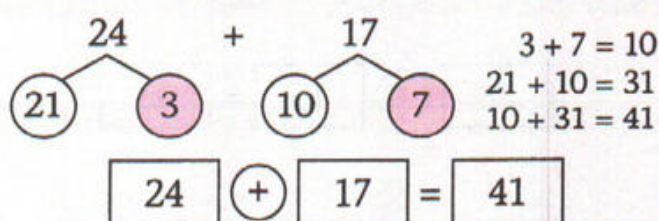


She sells 76 flowers altogether.

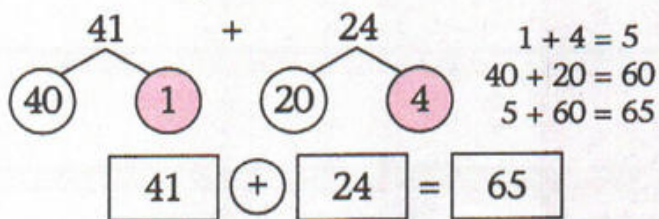
Solution to Question 12

12

Step 1 : Use number bonds to find the number of charity tickets Mary has sold



Step 2 : Use number bonds to find the total number of charity tickets they have sold

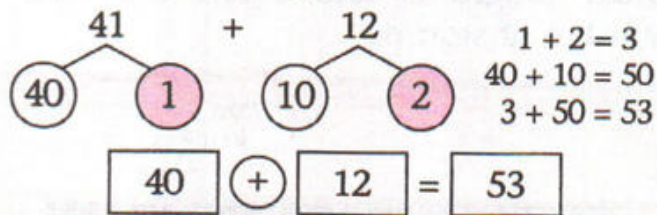


They sell 65 charity tickets altogether.

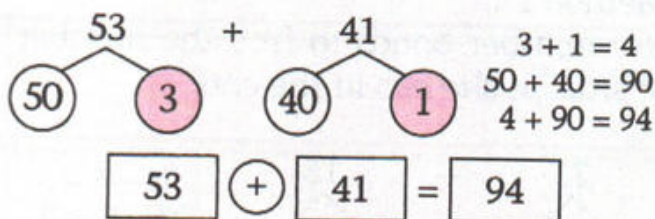
Solution to Question

13

Step 1 : Use number bonds to find the cost of a pair of pants



Step 2 : Use number bonds to find the total cost of the shirt and the pair of pants

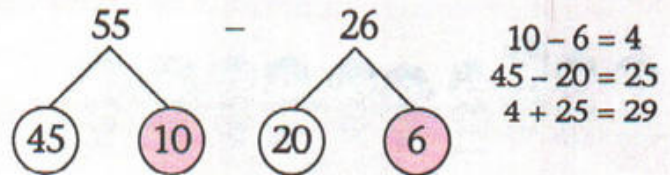


The shirt and the pair of pants cost \$94 altogether.

Solution to Question

15

Use number bonds to find how many more balloons Jack must buy



$$55 - 26 = 29$$

Jack must buy 29 more balloons.

Solution to Question

14

Step 1 : Draw diagrams to find the cost of a book

Magazine



Book



$$9 - 5 = 4$$

Step 2 : Use repeated addition to find the cost of 3 such books

$$4 \times 3 = 12$$

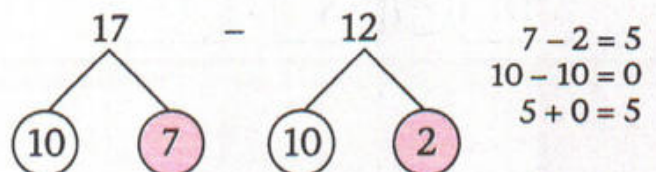
$$4 + 4 + 4 = 12$$

The cost of 3 such books is \$12.

Solution to Question

16

Use number bonds to find the smaller number



Check:
 $17 - 12 = 5$

$$17 - 12 = 5$$

The smaller number is 5.

Solution to Question

17

Method 1 :

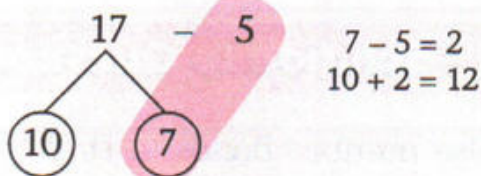
Draw diagrams and count the number of tickets left



Friends

Method 2 :

Use number bonds to find the number of people in Mr Cook's family



$$\boxed{17} - \boxed{5} = \boxed{12}$$

There are 12 people in Mr Cook's family.

Solution to Question

18

Method 1 :

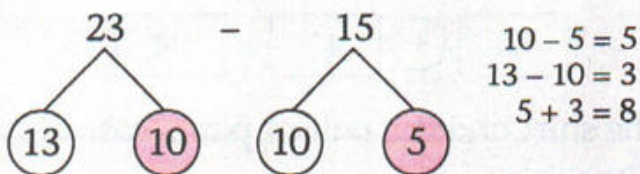
Draw diagrams and count the total number of stamps

Draw the stamps in rows of 10



Method 2 :

Use number bonds to find the number of stamps she has in the end



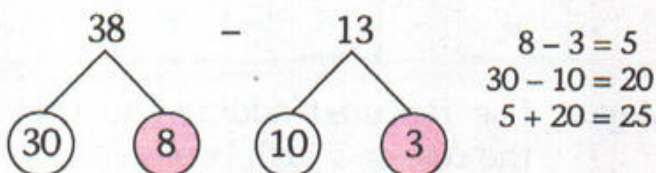
$$\boxed{23} - \boxed{15} = \boxed{8}$$

She has 8 stamps in the end.

Solution to Question

19

Use number bonds to find the number



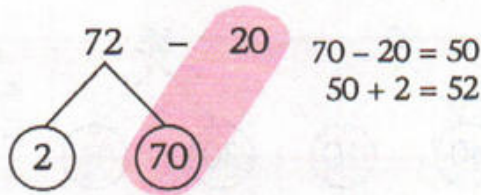
$$\boxed{38} - \boxed{13} = \boxed{25}$$

The number is 25.

Solution to Question

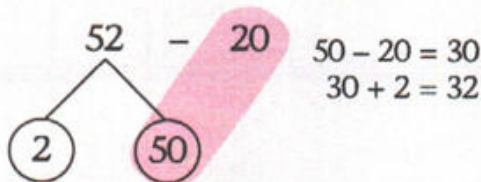
20

Step 1 : Use number bonds to find the number of adults



$$\boxed{72} - \boxed{20} = \boxed{52}$$

Step 2 : Use number bonds to find how many more adults than children there are



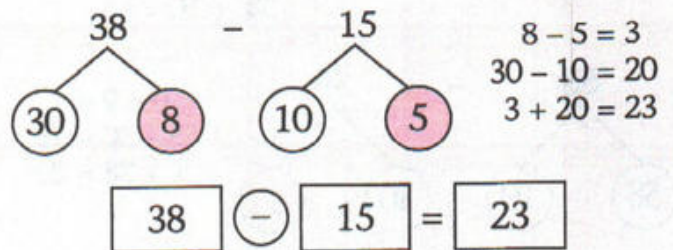
$$\boxed{52} - \boxed{20} = \boxed{32}$$

There are 32 more adults than children.

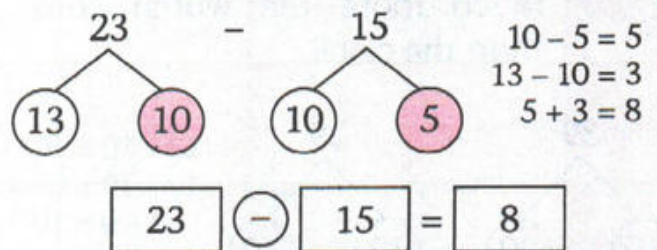
Solution to Question

21

Step 1 : Use number bonds to find the number of soldiers in brown uniforms



Step 2 : Use number bonds to find how many more soldiers wear brown uniforms than green uniforms



8 more soldiers wear brown uniforms than green uniforms.

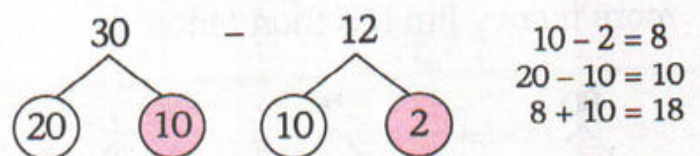
Solution to Question

22

Step 1 : Write down the number sentence

$$12 + ? = 30$$

Step 2 : Use number bonds to find the number



Check:
 $12 + 18 = 30$

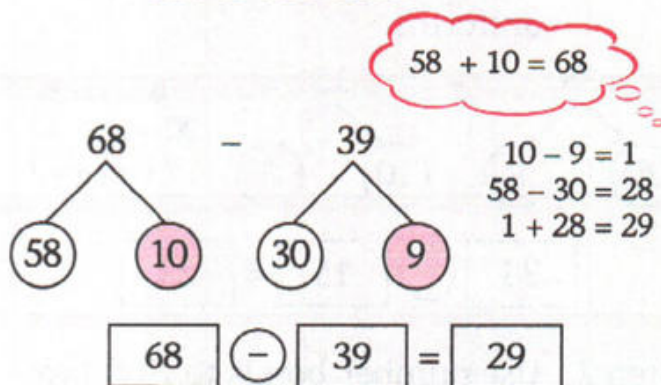
$$\boxed{30} - \boxed{12} = \boxed{18}$$

The other number is 18.

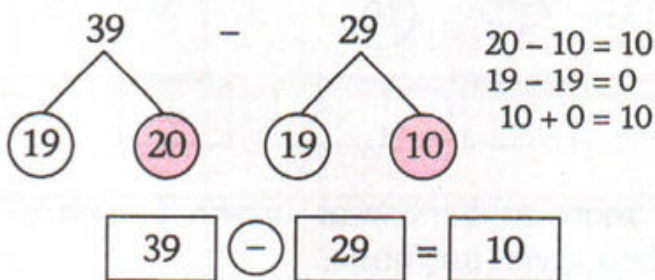
Solution to Question

23

Step 1 : Use number bonds to find the cost of the clock



Step 2 : Use number bonds to find how much more the watch costs than the clock

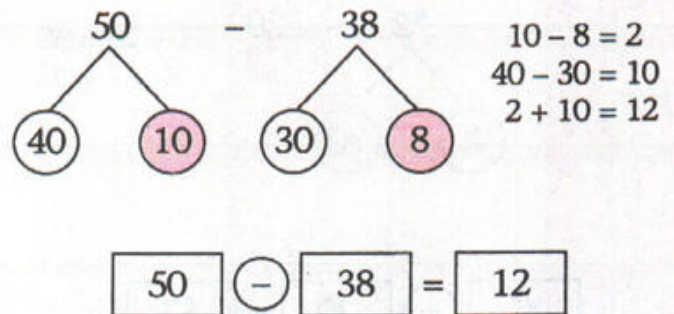


The watch costs \$10 more than the clock.

Solution to Question

25

Use number bonds to find the amount of change she gets

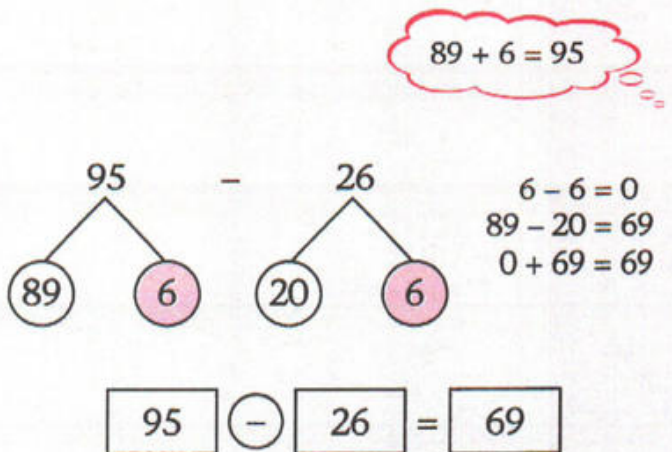


She gets \$12 in change.

Solution to Question

26

Use number bonds to find how much money Tim saves

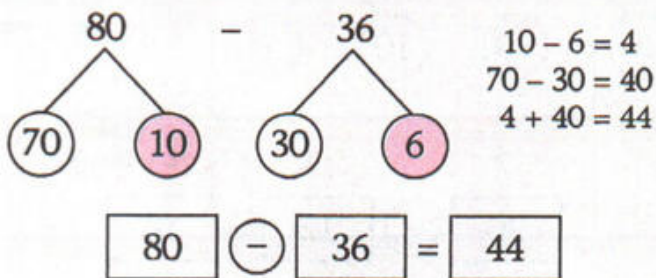


He saves \$69.

Solution to Question

24

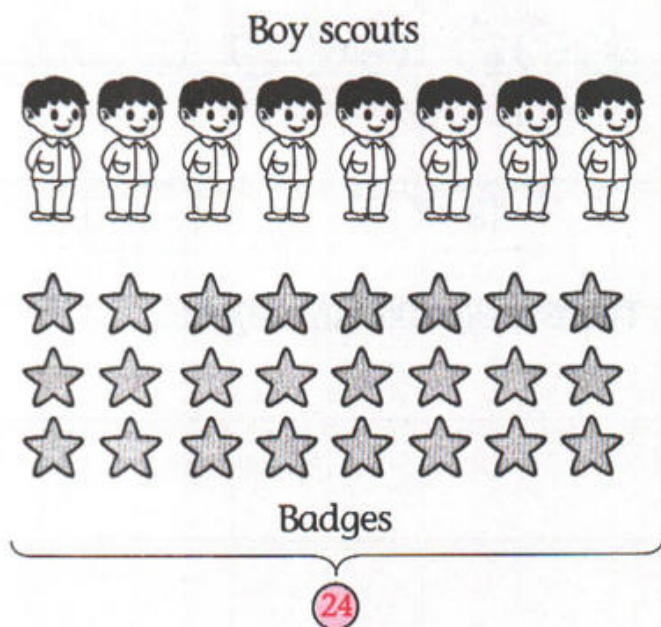
Use number bonds to find how much more money Jim has than Linda



Jim has \$44 more than Linda.

Method 1 :

Draw diagrams and count the number of badges altogether



Method 2 :

Use repeated addition to find the number of badges

$$8 \times 3 = 24$$

$$\boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} = \boxed{24}$$

They have 24 badges altogether.

Method 1 :

Draw a table and count the number of glasses of milk he drinks in a week

1 week = 7 days

Monday	 
Tuesday	 
Wednesday	 
Thursday	 
Friday	 
Saturday	 
Sunday	 

14

Method 2 :

Use repeated addition to find the number of glasses of milk he drinks in a week

$$7 \times 2 = 14$$

$$\boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} = \boxed{14}$$

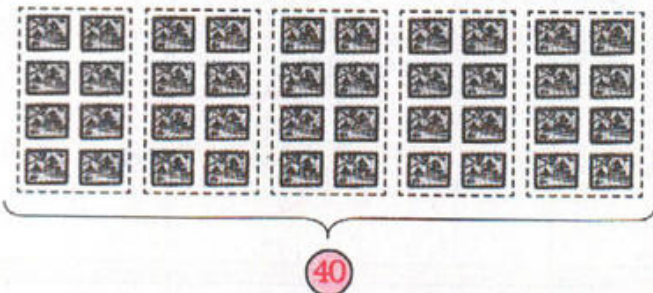
He drinks 14 glasses of milk in a week.

Solution to Question

29

Method 1 :

Draw diagrams to count the total number of stamps



Method 2 :

Use repeated addition to find the total number of stamps she has

$$5 \times 8 = 40$$

$$8 + 8 + 8 + 8 + 8 = 40$$

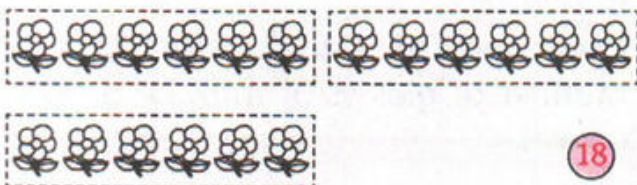
She has 40 stamps altogether.

Solution to Question

30

Method 1 :

Draw diagrams to count the total number of flowers



Method 2 :

Use repeated addition to find the total number of flowers

$$3 \times 6 = 18$$

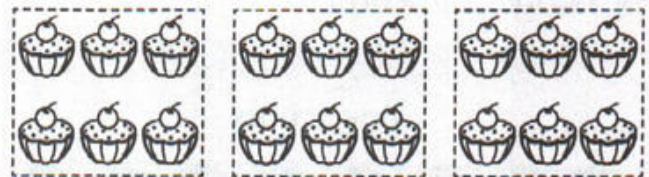
$$6 + 6 + 6 = 18$$

She buys 18 flowers altogether.

Solution to Question

31

Draw diagrams and put 18 cakes into 3 equal groups



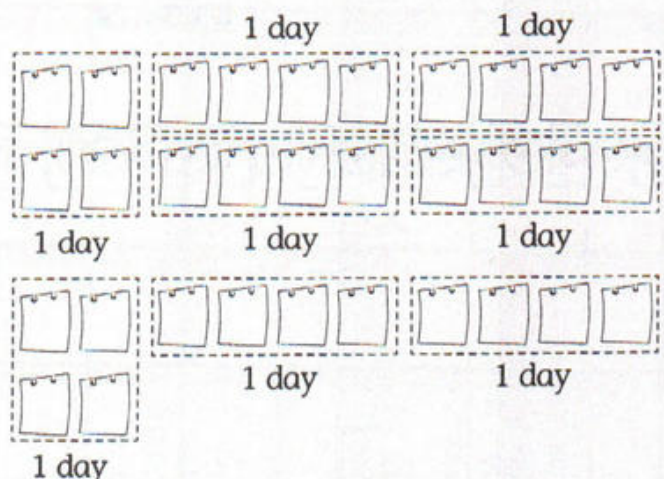
$$18 \div 3 = 6$$

There are 6 cakes in each box.

Solution to Question

32

Draw diagrams and put 4 pages in one group



$$32 \div 4 = 8$$

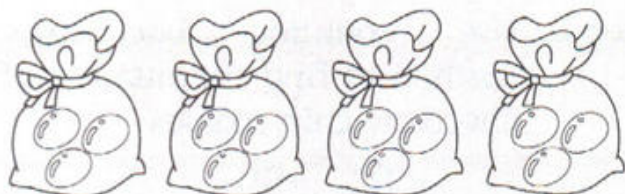
He will take 8 days to finish reading a 32-page book.

Solution to Question

33

Draw diagrams to group the eggs into 4 bags equally

A dozen = a group of 12



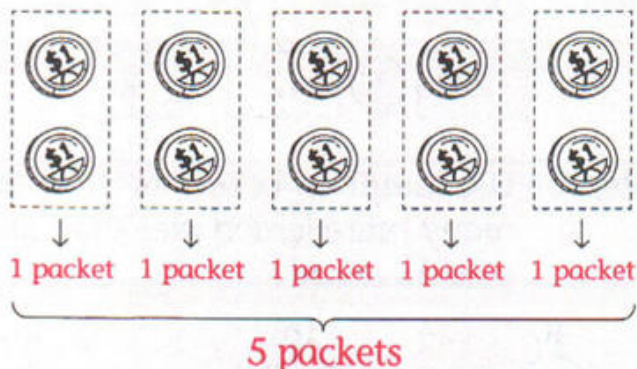
$$12 \div 4 = 3$$

There are 3 eggs in each bag.

Solution to Question

34

Draw diagrams and circle 2 one-dollar coins to represent 1 packet



$$\$10 \div \$2 = 5$$

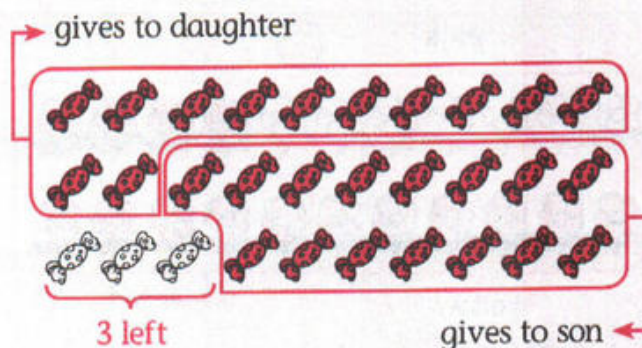
She can buy 5 packets of tomatoes with all her money.

Solution to Question

35

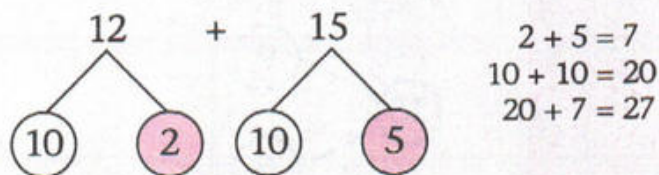
Method 1 :

Draw diagrams and count the number of sweets left



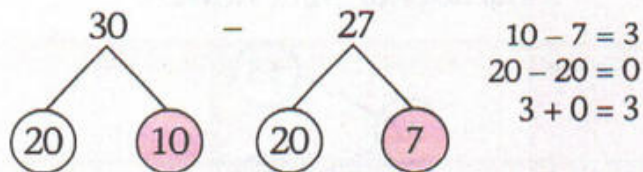
Method 2 :

Step 1 : Use number bonds to find the number of sweets she gives away



$$12 + 15 = 27$$

Step 2 : Use number bonds to find the number of sweets she has left



$$30 - 27 = 3$$

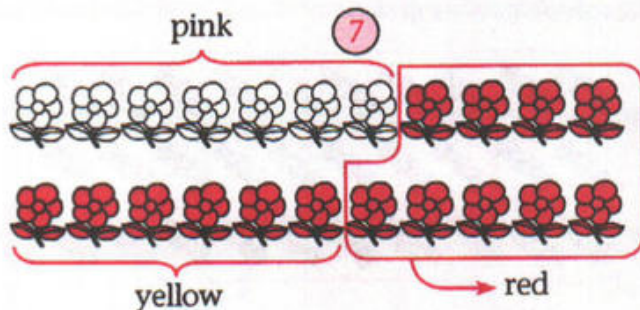
She has 3 sweets left.

Solution to Question

36

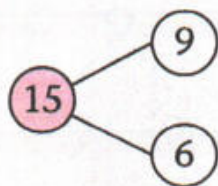
Method 1 :

Draw diagrams and group the flowers into different colours



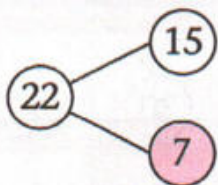
Method 2 :

Step 1 : Use number bonds to find the total number of red and yellow flowers



$$\boxed{9} + \boxed{6} = \boxed{15}$$

Step 2 : Use number bonds to find the number of pink flowers



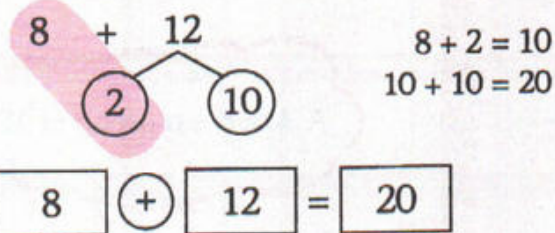
$$\boxed{22} - \boxed{15} = \boxed{7}$$

There are 7 pink flowers in the vase.

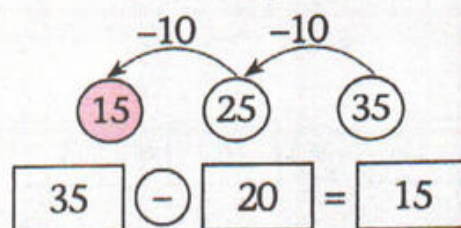
Solution to Question

37

Step 1 : Use number bonds to find the number of butter and coconut cookies



Step 2 : Use 'counting backwards' method to find the number of chocolate chip cookies

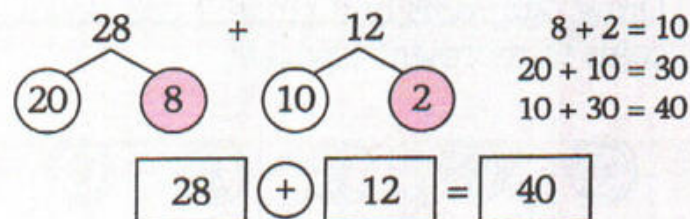


She bakes 15 chocolate chip cookies.

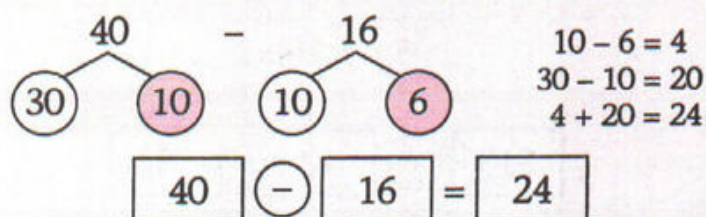
Solution to Question

38

Step 1 : Use number bonds to find the total number of lemon pies she bakes



Step 2 : Use number bonds to find how many more lemon pies than apple pies there are

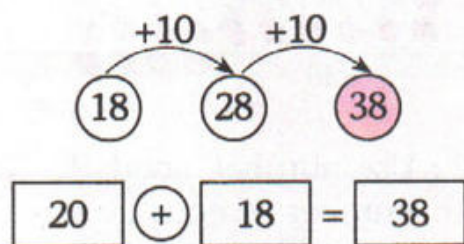


She bakes 24 more lemon pies than apple pies in the end.

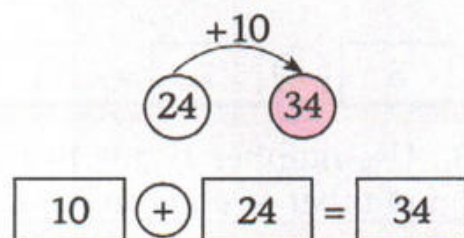
Solution to Question

39

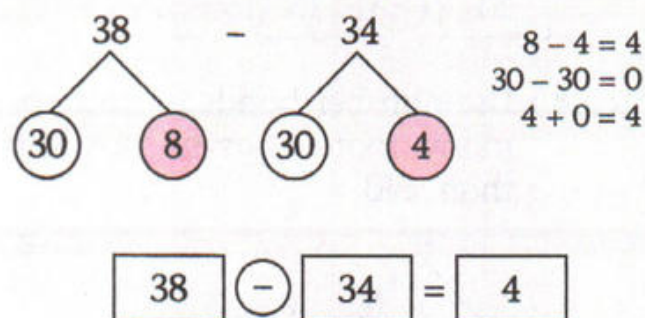
Step 1 : Use 'counting on' method to find the total number of boys



Step 2 : Use 'counting on' method to find the total number of girls



Step 3 : Use number bonds to find how many fewer girls than boys there are

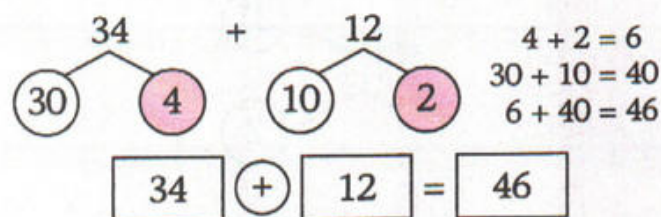


There are 4 fewer girls than boys altogether.

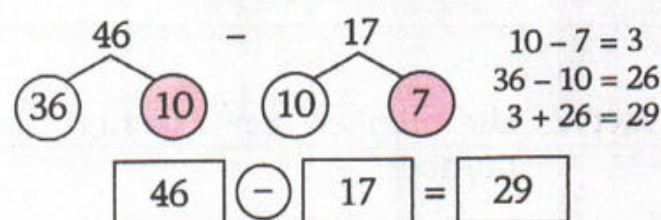
Solution to Question

40

Step 1 : Use number bonds to find the total number of nuts on the plate



Step 2 : Use number bonds to find the number of nuts Tom has eaten

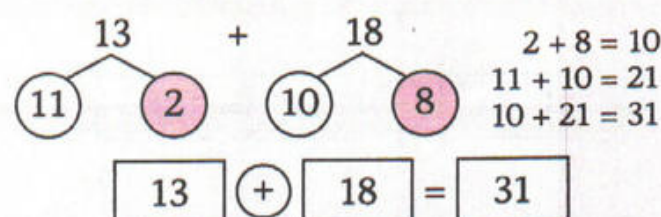


Tom eats 29 nuts.

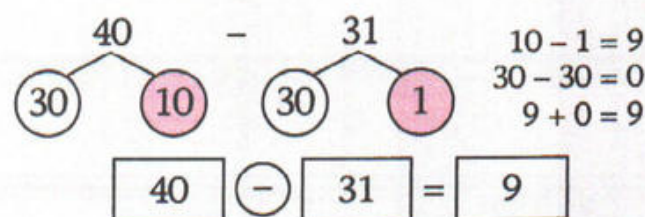
Solution to Question

41

Step 1 : Use number bonds to find the total number of marbles he receives

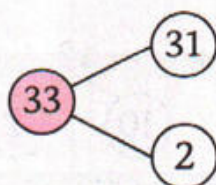


Step 2 : Use number bonds to find the total number of marbles he has at first



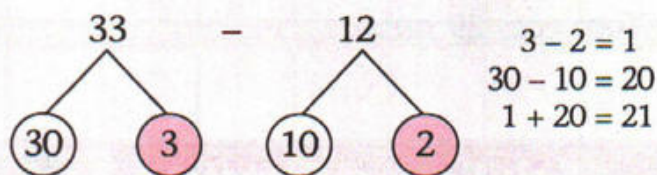
He has 9 marbles at first.

Step 1 : Use number bonds to find the result



$$\boxed{31} + \boxed{2} = \boxed{33}$$

Step 2 : Use number bonds to find the number

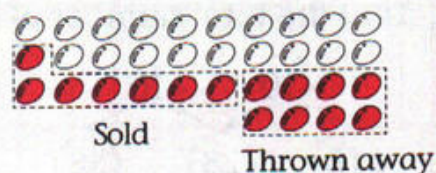


Check:
 $12 + 21 = 33$

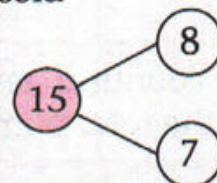
$$\boxed{33} - \boxed{12} = \boxed{21}$$

The number is 21.

Step 1 : Draw diagrams

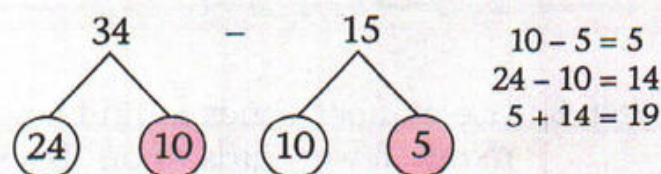


Step 2 : Use number bonds to find the number of eggs he has thrown and sold



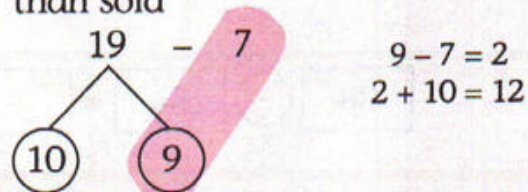
$$\boxed{8} + \boxed{7} = \boxed{15}$$

Step 3 : Use number bonds to find the number of eggs he has kept



$$\boxed{34} - \boxed{15} = \boxed{19}$$

Step 4 : Use number bonds to find how many more eggs he has kept than sold



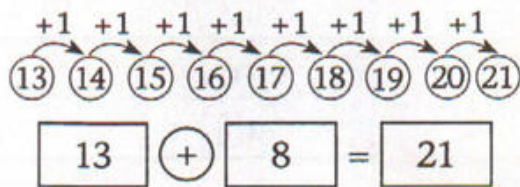
$$\boxed{19} - \boxed{7} = \boxed{12}$$

He keeps 12 more eggs than the number of eggs he sells.

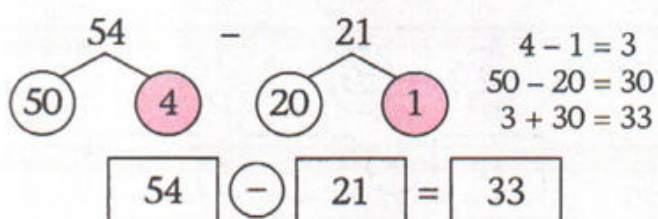
Solution to Question

44

Step 1 : Use 'counting on' method to find the total number of pages she has read on both days



Step 2 : Use number bonds to find the number of pages that are not read yet

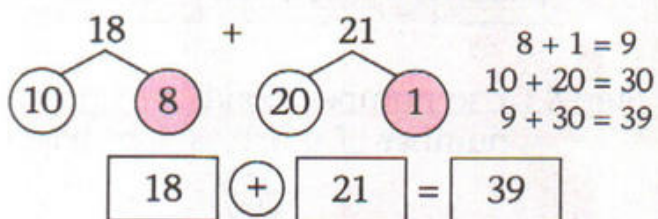


33 pages are not read yet.

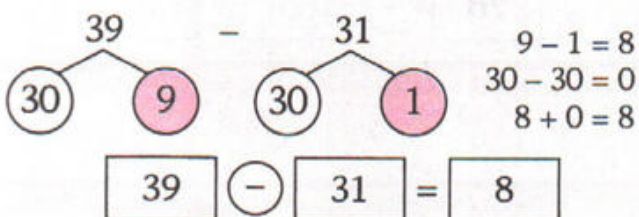
Solution to Question

45

Step 1 : Use number bonds to find the total number of children



Step 2 : Use number bonds to find the number of children who will not have a ball

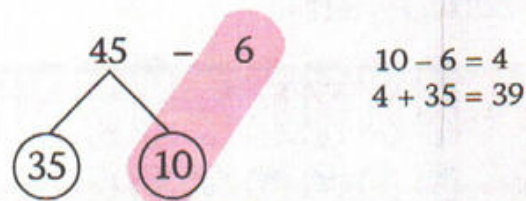


8 children will not have a ball.

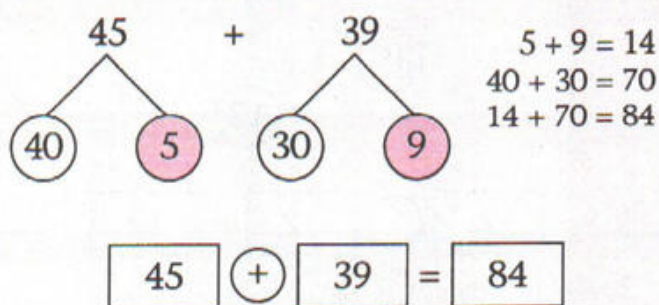
Solution to Question

46

Step 1 : Use number bonds to find the points scored by Alex



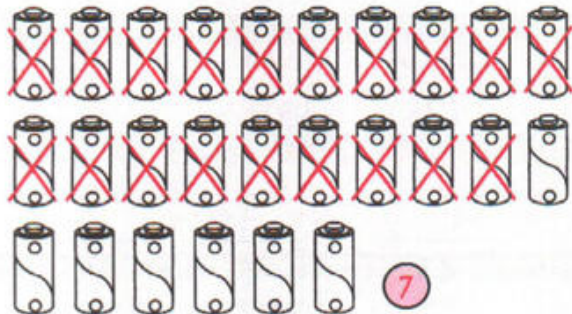
Step 2 : Use number bonds to find the total points scored by both boys



They score 84 points altogether.

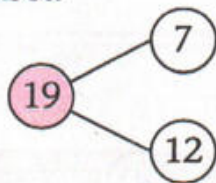
Method 1 :

Draw diagrams to count the number of batteries left



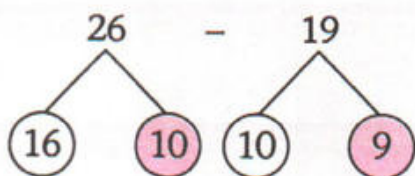
Method 2 :

Step 1 : Use number bonds to find the total number of batteries he has used



$$\boxed{7} + \boxed{12} = \boxed{19}$$

Step 2 : Use number bonds to find the number of batteries left in the box



$$\begin{aligned} 10 - 9 &= 1 \\ 16 - 10 &= 6 \\ 1 + 6 &= 7 \end{aligned}$$

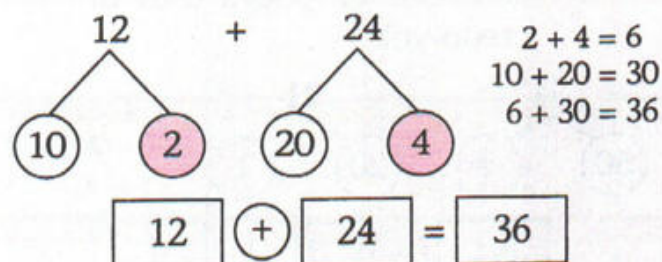
$$\boxed{26} - \boxed{19} = \boxed{7}$$

7 batteries are left in the box.

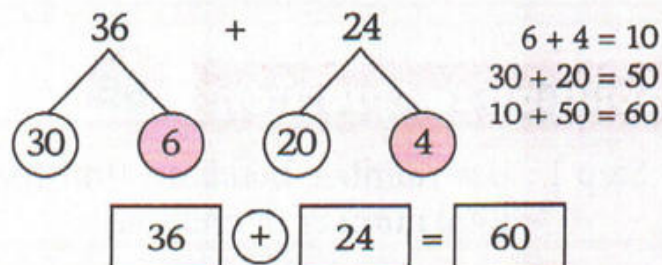
Step 1 : Draw a table

Jack	24
Anna	12 + 24
Tom	?
Total	70

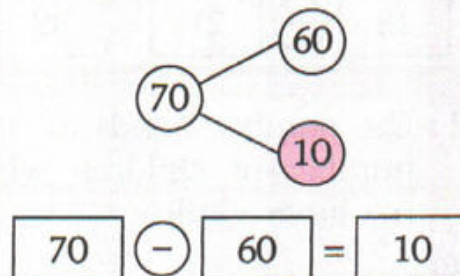
Step 2 : Use number bonds to find the number of marbles Anna has



Step 3 : Use number bonds to find the number of marbles Jack and Anna have



Step 4 : Use number bonds to find the number of marbles Tom has

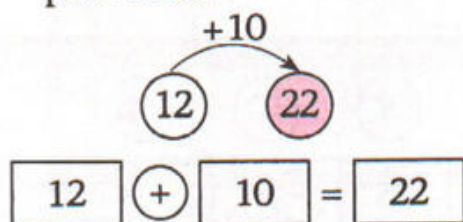


Tom has 10 marbles.

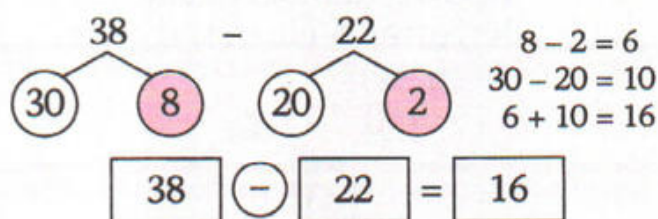
Solution to Question

49

Step 1: Use 'counting on' method to find the number of red and pink roses



Step 2: Use number bonds to find the number of white roses

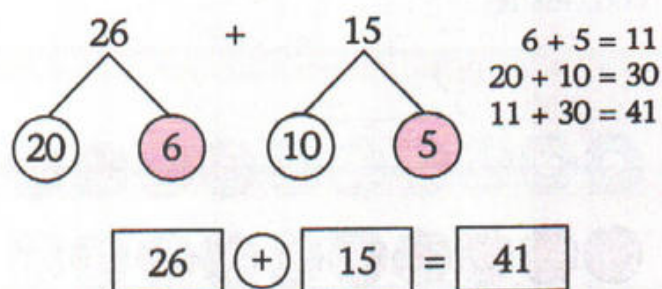


There are 16 white roses.

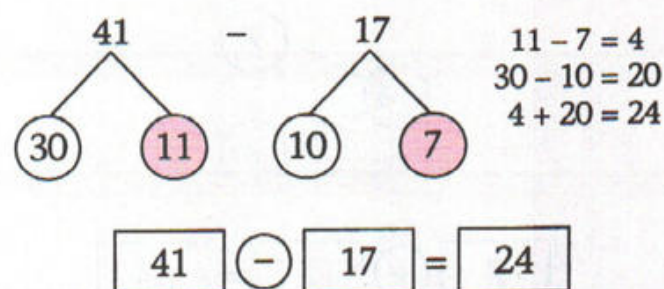
Solution to Question

51

Step 1: Use number bonds to find the number of children in the class



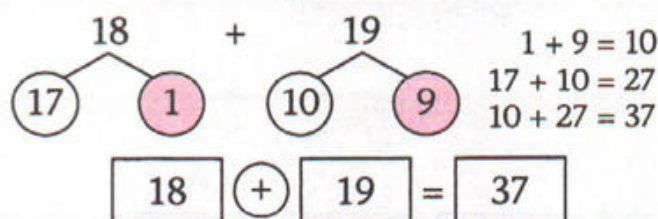
Step 2: Use number bonds to find the number of children who do not wear spectacles



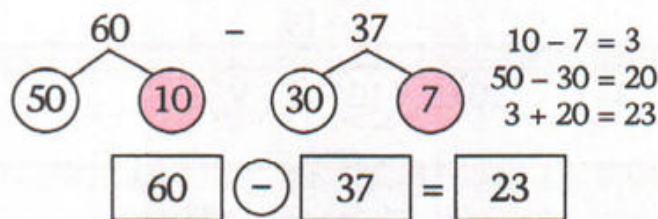
Solution to Question

50

Step 1: Use number bonds to find the number of pieces of fruit he has bought at the market



Step 2: Use number bonds to find the number of pieces of fruit he needs to buy

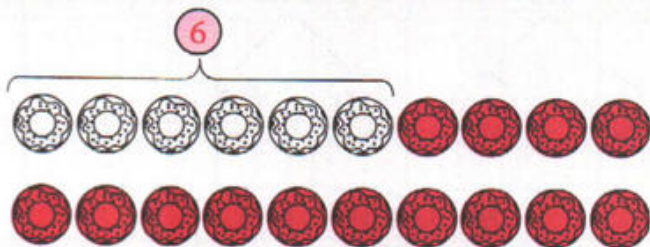


He needs to buy 23 more pieces of fruit.

24 children do not wear spectacles.

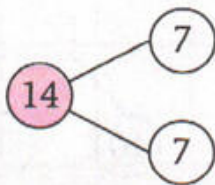
Method 1 :

Draw diagrams to find the number of cookies left



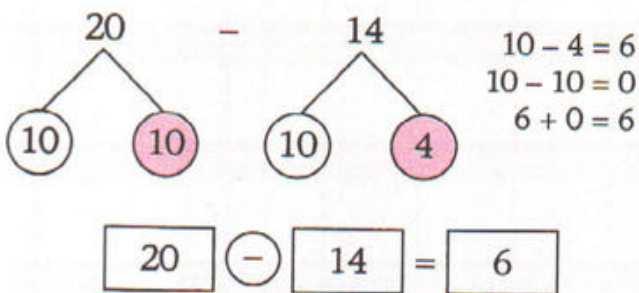
Method 2 :

Step 1 : Use number bonds to find the total number of cookies she has given away



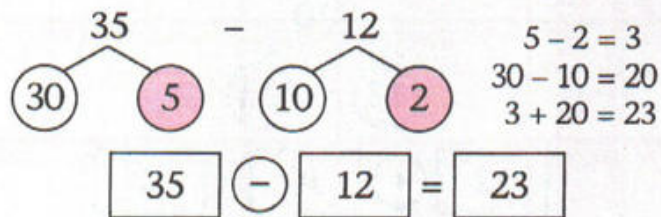
$$\boxed{7} + \boxed{7} = \boxed{14}$$

Step 2 : Use number bonds to find the number of cookies she has left

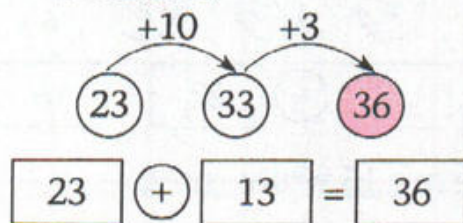


She has 6 cookies left.

Step 1 : Use number bonds to find the number of stickers Jane has left after giving 12 stickers to Sam

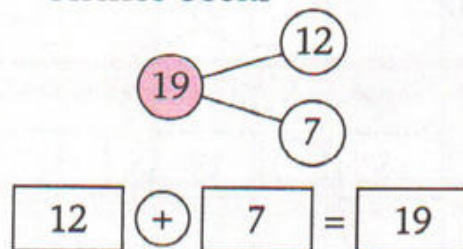


Step 2 : Use 'counting on' method to find the number of stickers Jane has after William has given her 13 stickers

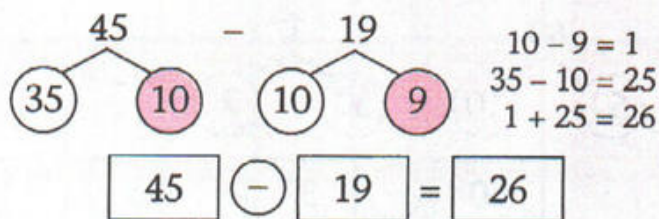


Jane has 36 stickers in the end.

Step 1 : Use number bonds to find the total number of English and science books

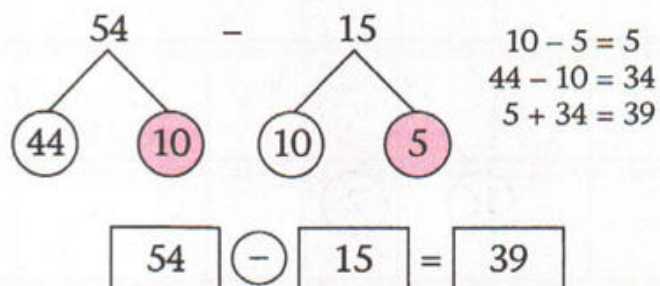


Step 2 : Use number bonds to find the number of mathematics books

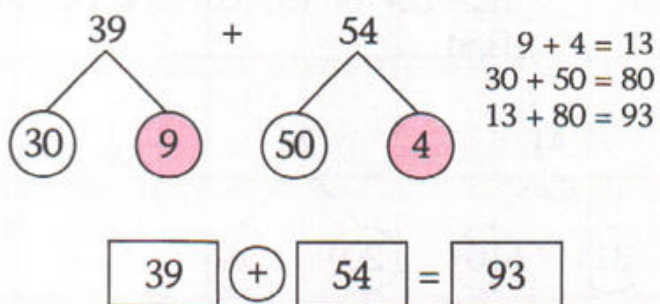


There are 26 mathematics books.

Step 1 : Use number bonds to find the number of red ribbons

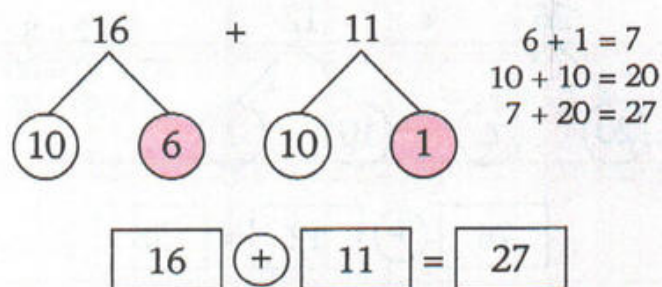


Step 2 : Use number bonds to find the number of red and pink ribbons

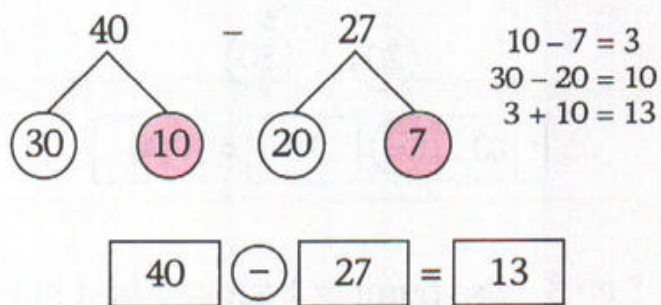


There are 93 ribbons altogether.

Step 1 : Use number bonds to find the number of orange and red fish



Step 2 : Use number bonds to find the number of white fish

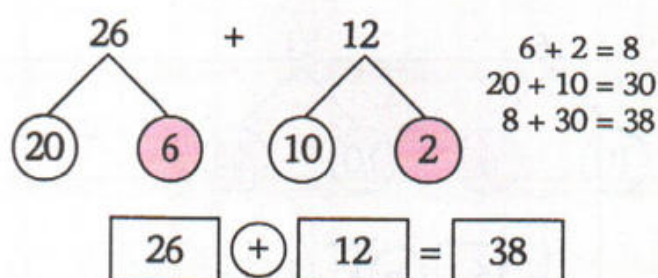


There are 13 white fish.

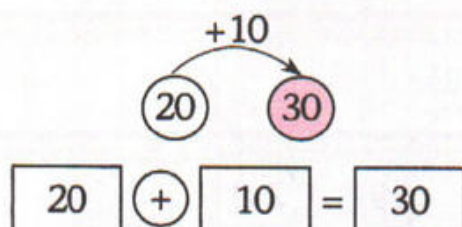
Solution to Question

57

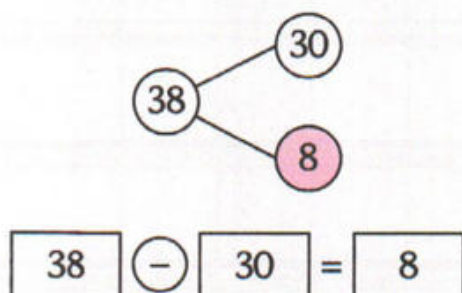
Step 1 : Use number bonds to find the number of apples in box A



Step 2 : Use 'counting on' method to find the number of apples in box B



Step 3 : Use number bonds to find how many more apples there are in box A than in box B

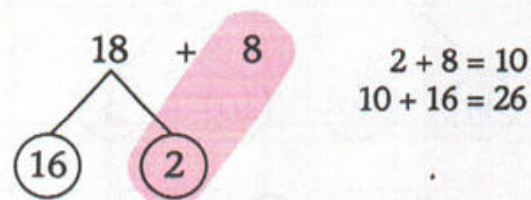


There are 8 more apples in box A than in box B.

Solution to Question

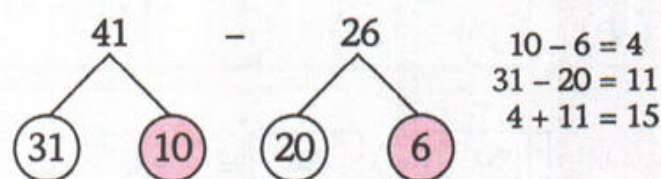
58

Step 1 : Use number bonds to find the total number of toy cars given to him



$$18 + 8 = 26$$

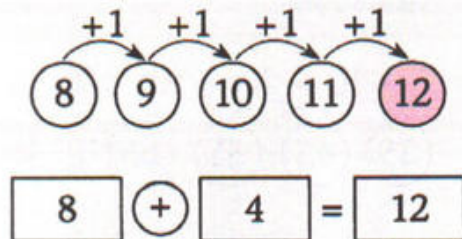
Step 2 : Use number bonds to find the number of toy cars he has at first



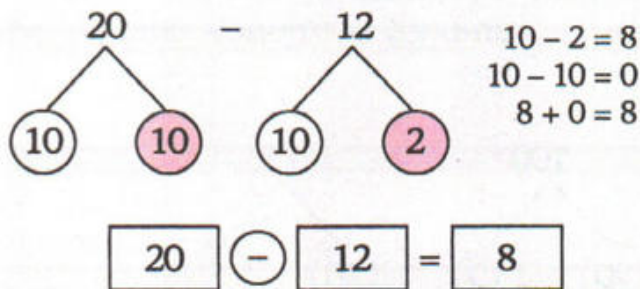
$$41 - 26 = 15$$

He has 15 toy cars at first.

Step 1 : Use 'counting on' method to find the amount of money he has spent on both days

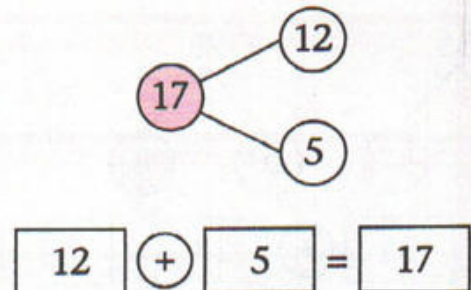


Step 2 : Use number bonds to find the amount of money he has left

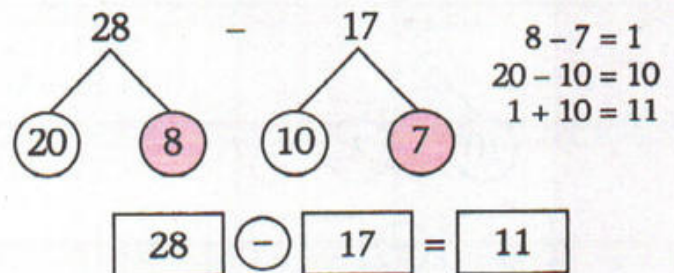


He has \$8 left.

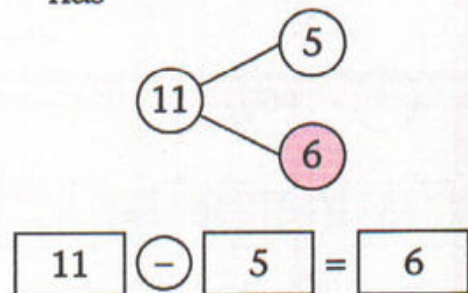
Step 1 : Use number bonds to find the total number of red and green toy aeroplanes



Step 2 : Use number bonds to find the number of blue toy aeroplanes

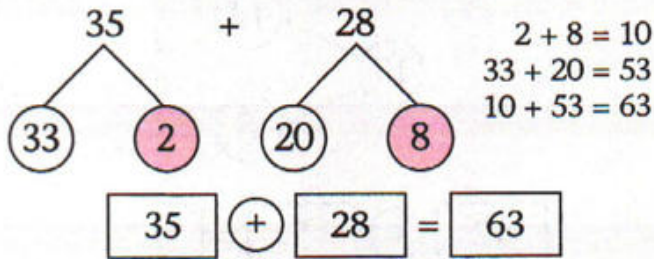


Step 3 : Use number bonds to find how many more blue toy aeroplanes than green toy aeroplanes he has

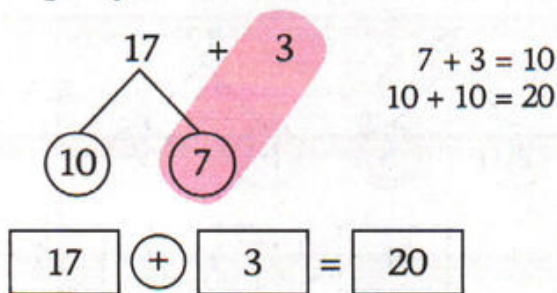


He has 6 more blue toy aeroplanes than green toy aeroplanes.

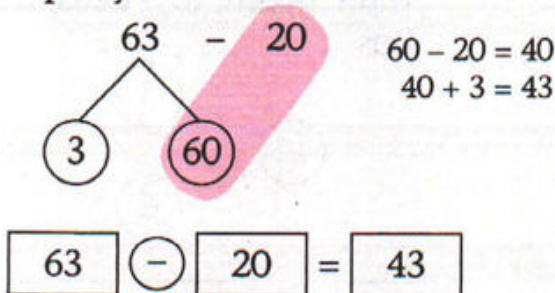
Step 1 : Use number bonds to find the total number of people at the party



Step 2 : Use number bonds to find the number of people who left the party

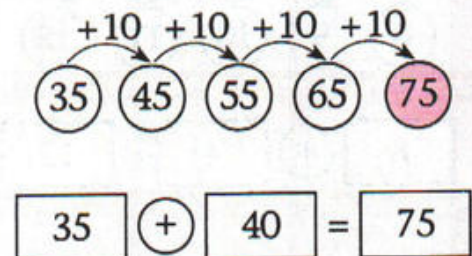


Step 3 : Use number bonds to find the number of people left at the party

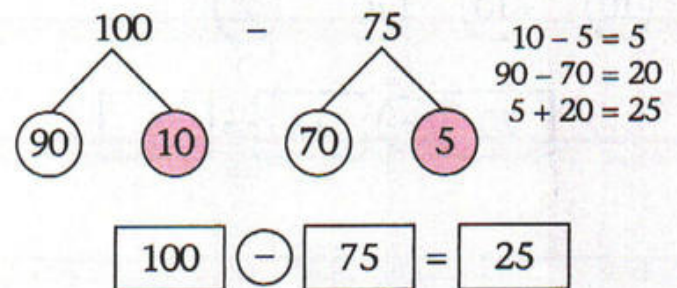


There are 43 people left.

Step 1 : Use 'counting on' method to find the total amount of money paid by Mr William and Mr Jackson

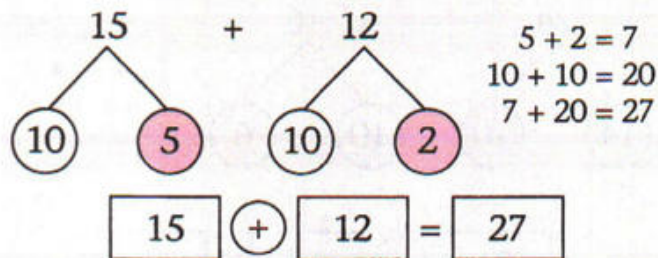


Step 2 : Use number bonds to find the amount of money paid by Mr Lee

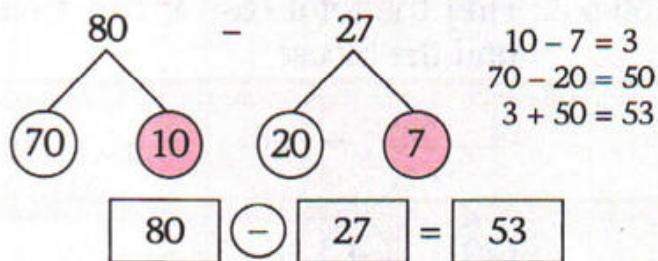


Mr Lee pays \$25.

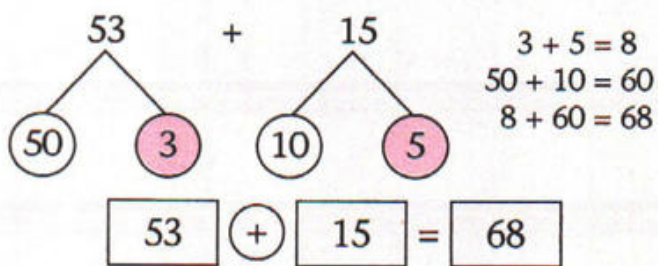
Step 1 : Use number bonds to find the total number of Primary 1 and Primary 2 students



Step 2 : Use number bonds to find the number of Primary 3 students



Step 3 : Use number bonds to find the total number of Primary 1 and Primary 3 students

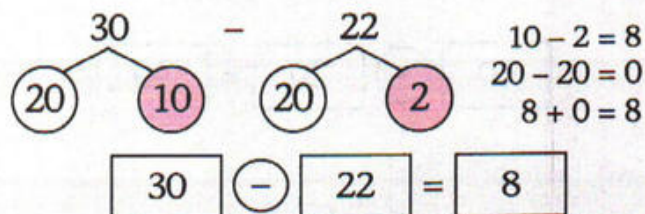


The total number of Primary 1 and Primary 3 students in the competition is 68.

Step 1 : Add the total amount of money spent and left

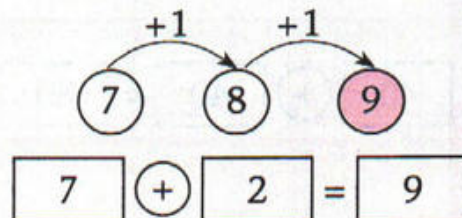
$$5 + 9 + 8 = 22$$

Step 2 : Use number bonds to find the amount of money he has spent on stationery

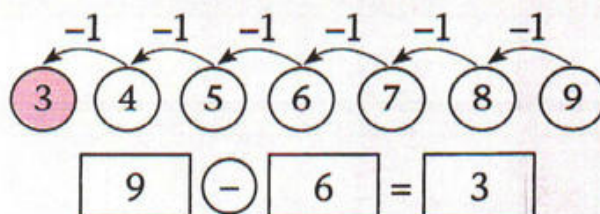


He spends \$8 on stationery.

Step 1 : Use 'counting on' method to find the amount of money Betty has



Step 2 : Use 'counting backwards' method to find the amount of money Peter has

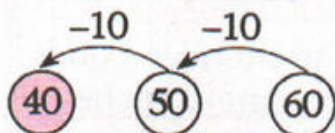


Step 3 : Add the amount of money they have altogether

$$7 + 9 + 3 = 19$$

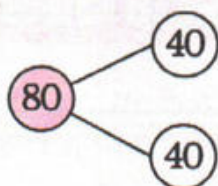
They have \$19 altogether.

Step 1 : Use 'counting backwards' method to find the cost of the orange



$$\boxed{60} - \boxed{20} = \boxed{40}$$

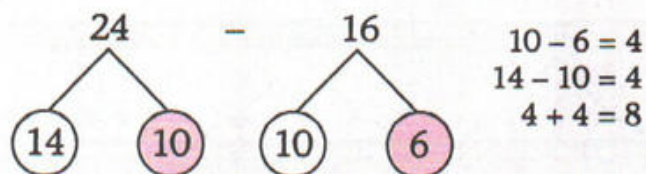
Step 2 : Use number bonds to find the cost of the pear



$$\boxed{40} + \boxed{40} = \boxed{80}$$

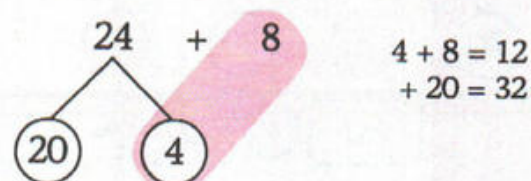
The pear costs 80 cents.

Step 1 : Use number bonds to find the cost of the blouse



$$\boxed{24} - \boxed{16} = \boxed{8}$$

Step 2 : Find the total cost of the dress and the blouse



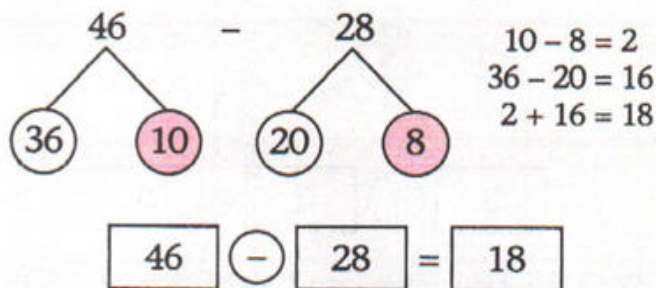
$$\boxed{24} + \boxed{8} = \boxed{32}$$

The total cost of the dress and the blouse is \$32.

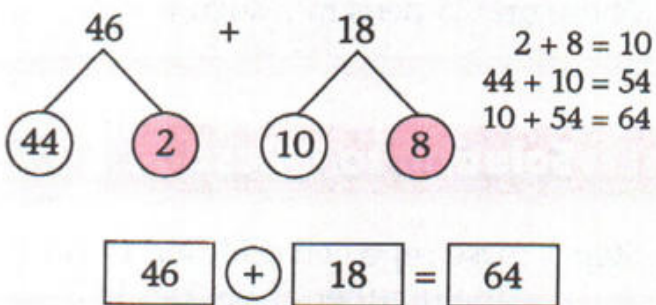
Solution to Question

68

Step 1 : Use number bonds to find the number of roses



Step 2 : Use number bonds to find the total number of flowers

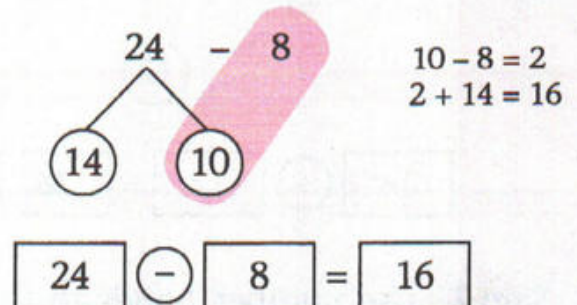


There are 64 flowers altogether.

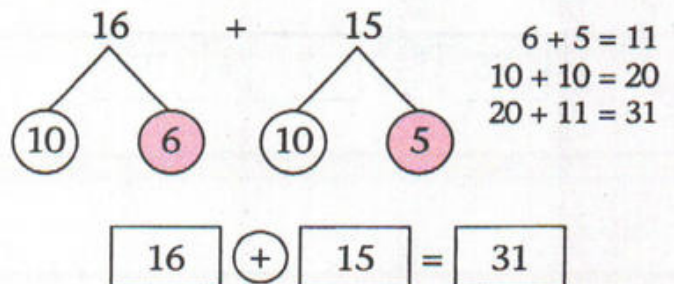
Solution to Question

69

Step 1 : Use number bonds to find the number of photographs in the album after 8 photographs are taken out



Step 2 : Use number bonds to find the number of photographs in the album after 15 new photographs are put in

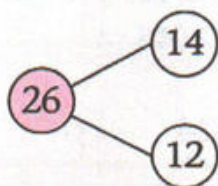


There are 31 photographs in the photo album in the end.

Solution to Question

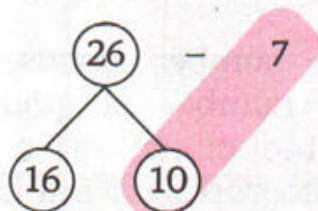
70

Step 1 : Use number bonds to find the total number of flowers



$$\boxed{14} + \boxed{12} = \boxed{26}$$

Step 2 : Use number bonds to find the number of flowers left



$$\begin{aligned} 10 - 7 &= 3 \\ 3 + 16 &= 19 \end{aligned}$$

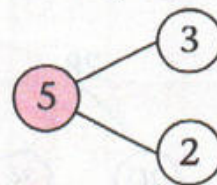
$$\boxed{26} - \boxed{7} = \boxed{19}$$

There are 19 flowers left.

Solution to Question

71

Step 1 : Use number bonds to find the number of pens in a box



$$\boxed{3} + \boxed{2} = \boxed{5}$$

Step 2 : Use repeated addition to find the number of pens in 5 boxes

$$5 \times 5 = 25$$

$$\boxed{5} + \boxed{5} + \boxed{5} + \boxed{5} + \boxed{5} = \boxed{25}$$

There are 25 pens in 5 such boxes.

Solution to Question

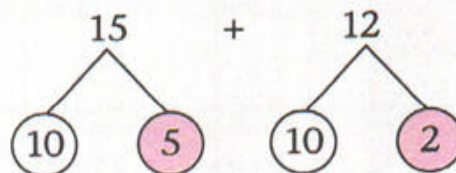
72

Step 1 : Use repeated addition to find the number of cookies in 3 boxes

$$3 \times 5 = 15$$

$$\boxed{5} + \boxed{5} + \boxed{5} = \boxed{15}$$

Step 2 : Use number bonds to find the number of cookies she has altogether

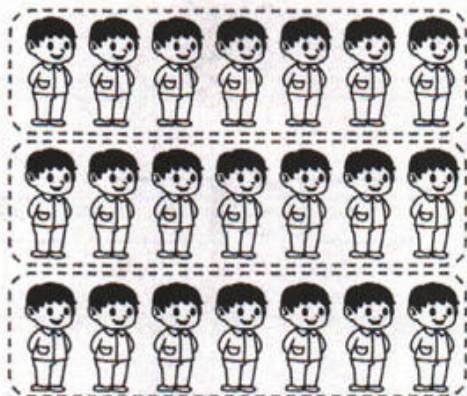


$$\begin{aligned} 5 + 2 &= 7 \\ 10 + 10 &= 20 \\ 7 + 20 &= 27 \end{aligned}$$

$$\boxed{15} + \boxed{12} = \boxed{27}$$

Mrs Rice has 27 cookies altogether.

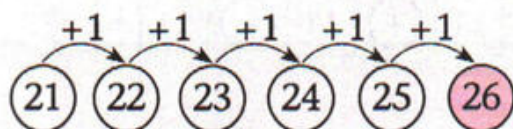
Step 1 : Draw diagrams and use repeated addition to find the total number of children in 3 rows



$$3 \times 7 = 21$$

$$7 + 7 + 7 = 21$$

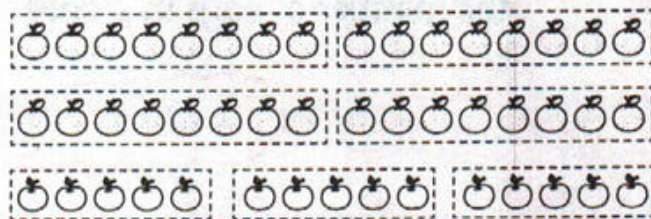
Step 2 : Use 'counting on' method to find the total number of children after 5 more children arrived at the hall



$$21 + 5 = 26$$

There are 26 children altogether.

Step 1 : Draw diagrams



Step 2 : Use repeated addition to find the total number of oranges

$$4 \times 8 = 32$$

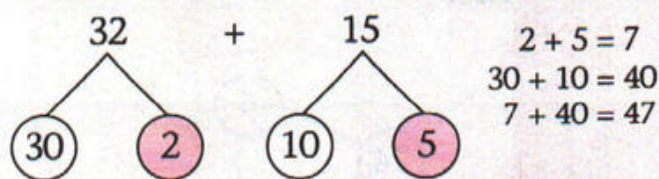
$$8 + 8 + 8 + 8 = 32$$

Step 3 : Use repeated addition to find the total number of apples

$$3 \times 5 = 15$$

$$5 + 5 + 5 = 15$$

Step 4 : Use number bonds to find the total number of pieces of fruit



$$32 + 15 = 47$$

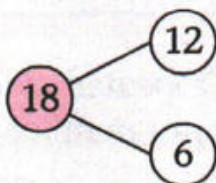
There are 47 pieces of fruit altogether.

Step 1 : Use repeated addition to find the number of eggs in 2 bags

$$2 \times 3 = 6$$

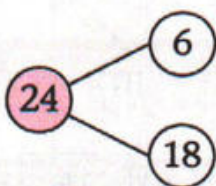
$$\boxed{3} + \boxed{3} = \boxed{6}$$

Step 2 : Use number bonds to find the number of eggs that he has cooked and thrown away



$$\boxed{12} + \boxed{6} = \boxed{18}$$

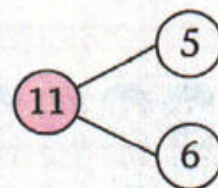
Step 3 : Use number bonds to find the total number of eggs he has at first



$$\boxed{6} + \boxed{18} = \boxed{24}$$

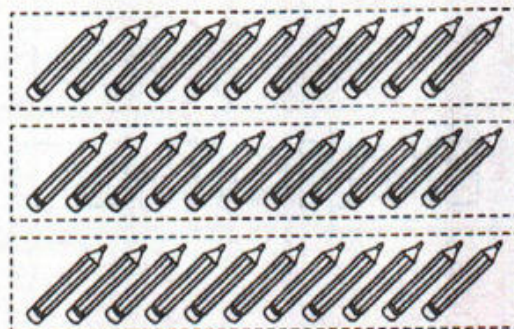
He has 24 eggs at first.

Step 1 : Use number bonds to find the number of crayons in a box



$$\boxed{5} + \boxed{6} = \boxed{11}$$

Step 2 : Draw diagrams

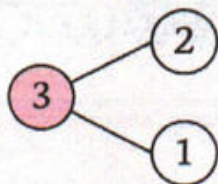


$$3 \times 11 = 33$$

$$\boxed{11} + \boxed{11} + \boxed{11} = \boxed{33}$$

There are 33 crayons altogether.

Step 1 : Use number bonds to find the total number of people sharing the apples



$$\boxed{2} + \boxed{1} = \boxed{3}$$

Step 2 : Draw a table to group the apples into 3 sets

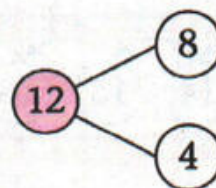
Mr Bell	Friend 1	Friend 2

3 groups of 6 = 18

$$\boxed{18} \div \boxed{3} = \boxed{6}$$

Each of them gets 6 apples.

Step 1 : Use number bonds to find the total number of coins



$$\boxed{8} + \boxed{4} = \boxed{12}$$

Step 2 : Draw diagrams to find the number of coins each of them gets

$$12 \div 2 = 6$$

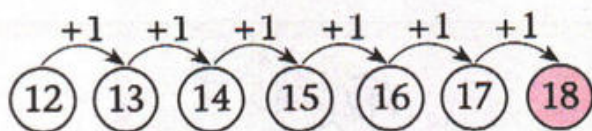


2 groups of 6 = 12

$$\boxed{12} \div \boxed{2} = \boxed{6}$$

Each of them gets 6 coins.

Step 1 : Use 'counting on' method to find the total number of eggs



$$\boxed{12} + \boxed{6} = \boxed{18}$$

Step 2 : Draw diagrams and put the 18 eggs into 3 groups

$$18 \div 3 = 6$$



3 groups of 6 = 18

$$\boxed{18} \div \boxed{3} = \boxed{6}$$

There are 6 eggs in each packet.

Step 1 : Draw diagrams to find the cost of 1 book and 1 pen

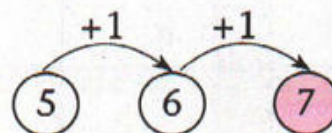


A book costs \$5.



A pen costs \$2.

Step 2 : Use 'counting on' method to find the total cost of a book and a pen



$$\boxed{5} + \boxed{2} = \boxed{7}$$

Peter spends \$7 if he buys a book and a pen.

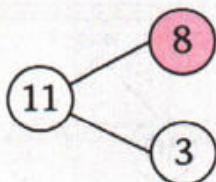
Method 1 :

Draw diagrams to find the total number of hats



Method 2 :

Step 1 : Use number bonds to find the number of children with hats



$$\boxed{11} - \boxed{3} = \boxed{8}$$

Step 2 : Use repeated addition to find the total number of hats

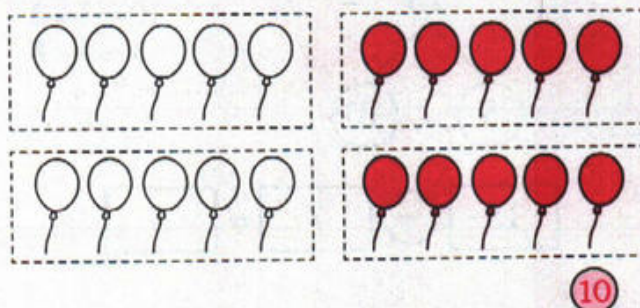
$$8 \times 2 = 16$$

$$\boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} + \boxed{2} = \boxed{16}$$

They have 16 hats altogether.

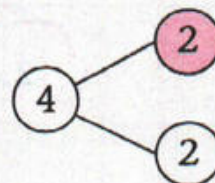
Method 1 :

Draw diagrams to find the number of balloons left



Method 2 :

Step 1 : Use number bonds to find the number of packets of balloons left



$$\boxed{4} - \boxed{2} = \boxed{2}$$

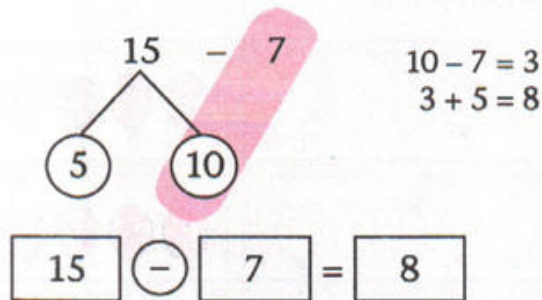
Step 2 : Use repeated addition to find the number of balloons left

$$2 \times 5 = 10$$

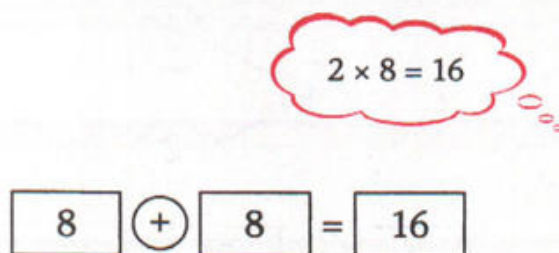
$$\boxed{5} + \boxed{5} = \boxed{10}$$

She has 10 balloons left.

Step 1 : Use number bonds to find the cost of a chocolate cake

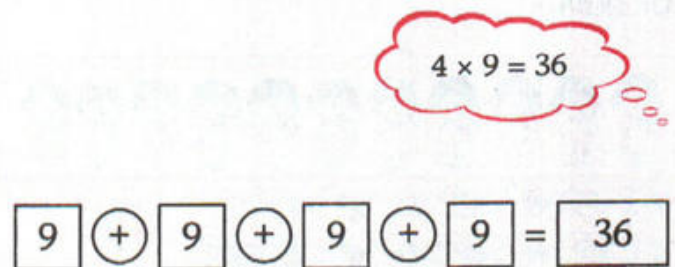


Step 2 : Use repeated addition to find the cost of 2 such chocolate cakes

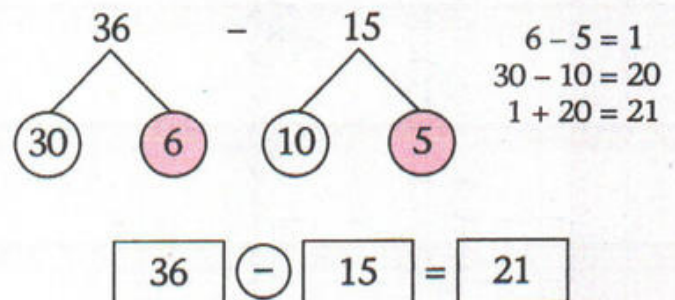


2 such chocolate cakes cost \$16.

Step 1 : Use repeated addition to find the total number of oranges



Step 2 : Use number bonds to find the total number of oranges left



He has 21 oranges left.

Solution to Question

85

Step 1 : Use repeated addition to find the cost of 3 stalks of roses

$$3 \times 5 = 15$$

$$\boxed{5} \oplus \boxed{5} \oplus \boxed{5} = \boxed{15}$$

Step 2 : Use number bonds to find the amount of money she has collected from selling the orchids

$$\begin{array}{r} 27 \\ \swarrow \searrow \\ 20 \quad 7 \end{array} - \begin{array}{r} 15 \\ \swarrow \searrow \\ 10 \quad 5 \end{array}$$

$$\begin{array}{l} 7 - 5 = 2 \\ 20 - 10 = 10 \\ 2 + 10 = 12 \end{array}$$

$$\boxed{27} \ominus \boxed{15} = \boxed{12}$$

She collects \$12 from selling the orchids.

Solution to Question

86

Step 1 : Use repeated addition to find the total cost of 2 chairs

$$2 \times 8 = 16$$

$$\boxed{8} \oplus \boxed{8} = \boxed{16}$$

Step 2 : Use number bonds to find the cost of the table

$$\begin{array}{r} 50 \\ \swarrow \searrow \\ 40 \quad 10 \end{array} - \begin{array}{r} 16 \\ \swarrow \searrow \\ 10 \quad 6 \end{array}$$

$$\begin{array}{l} 10 - 6 = 4 \\ 40 - 10 = 30 \\ 4 + 30 = 34 \end{array}$$

$$\boxed{50} \ominus \boxed{16} = \boxed{34}$$

The cost of the table is \$34.

Method 1 :

Draw diagrams to find the number of buns left



Method 2 :

Step 1 : Subtract the number of buns eaten by each child

$$\boxed{5} - \boxed{2} = \boxed{3}$$

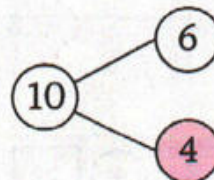
Step 2 : Use repeated addition to find the number of buns left

$$3 \times 4 = 12$$

$$\boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} = \boxed{12}$$

There are 12 buns left.

Step 1 : Use number bonds to find the number of boxes of egg tarts she has left



$$\boxed{10} - \boxed{6} = \boxed{4}$$

Step 2 : Use repeated addition to find the number of egg tarts she has left

$$4 \times 4 = 16$$

$$\boxed{4} + \boxed{4} + \boxed{4} + \boxed{4} = \boxed{16}$$

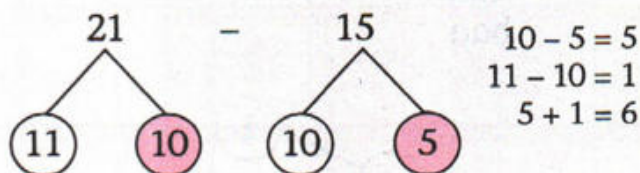
Mrs Taylor has 16 egg tarts left.

Step 1 : Use repeated addition to find the total number of balloons

$$7 \times 3 = 21$$

$$\boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} + \boxed{3} = \boxed{21}$$

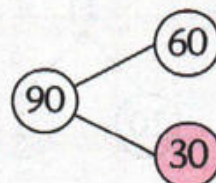
Step 2 : Use number bonds to find the number of blue balloons



$$\boxed{21} - \boxed{15} = \boxed{6}$$

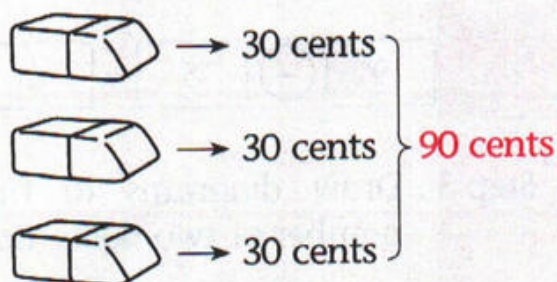
There are 6 blue balloons.

Step 1 : Use number bonds to find the cost of an eraser



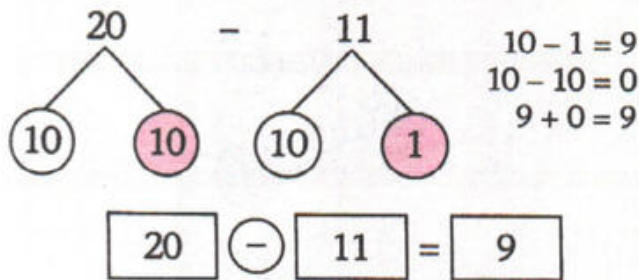
$$\boxed{90} - \boxed{60} = \boxed{30}$$

Step 2 : Draw diagrams to find the cost of 3 erasers

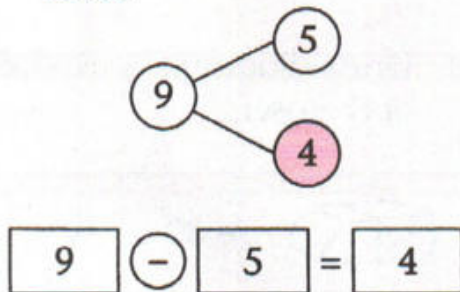


He has to pay 90 cents for 3 erasers.

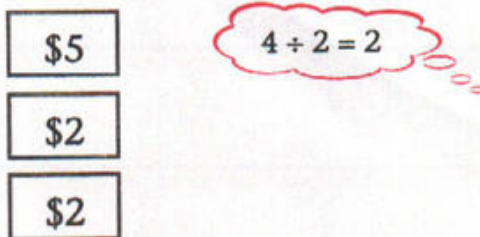
Step 1 : Use number bonds to find the amount of change he gets



Step 2 : Use number bonds to find the amount of money in two-dollar notes



Step 3 : Draw diagrams to find the number of two-dollar notes



The cashier gives him 2 two-dollar notes.

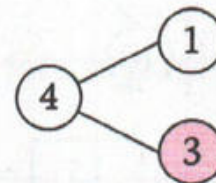
Step 1 : Draw diagrams to find the number of buns in one bag

$12 \div 3 = 4$



There are 4 buns in each bag.

Step 2 : Use number bonds to find the number of butter buns in each bag

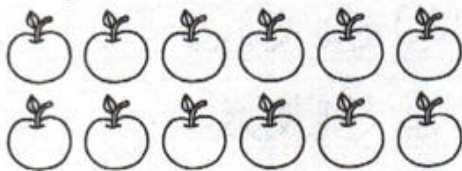


$4 - 1 = 3$

There are 3 butter buns in each bag.

Step 1 : Draw diagrams to find how many more apples Mary has than George

Mary



George



$$12 - 6 = 6$$

Step 2 : Divide to find how many apples Mary has to give to George

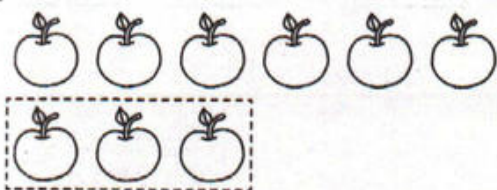
$$2 \times 3 = 6$$

2 groups of 3 = 6

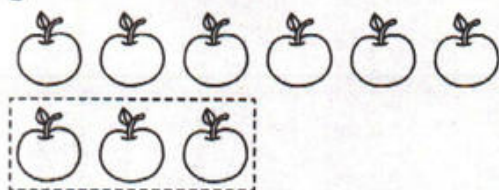
$$\boxed{6} \div \boxed{2} = \boxed{3}$$

Step 3 : Draw diagrams to check if the answer is correct

Mary

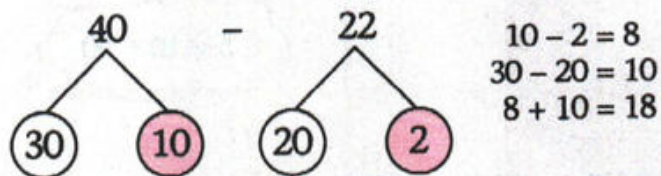


George



Mary must give George 3 apples.

Step 1 : Use number bonds to find how many more stickers Daniel has than Kate



$$\boxed{40} - \boxed{22} = \boxed{18}$$

Step 2 : Divide to find how many stickers Daniel has to give to Kate

$$2 \times 9 = 18$$

2 groups of 9 = 18

$$\boxed{18} \div \boxed{2} = \boxed{9}$$

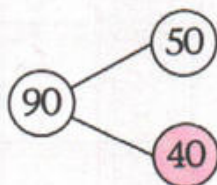
He must give Kate 9 stickers.

Step 1 : Use repeated addition to find the amount of money in ten-cent coins

$$5 \times 10 = 50$$

$$10 + 10 + 10 + 10 + 10 = 50$$

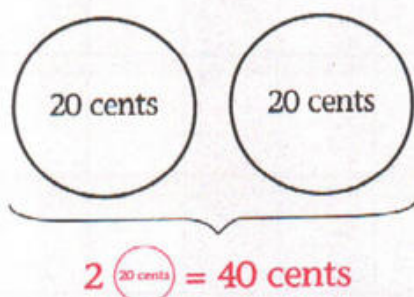
Step 2 : Use number bonds to find the amount of money in twenty-cent coins



$$90 - 50 = 40$$

Step 3 : Draw diagrams to find the number of twenty-cent coins

$$20 \times 2 = 40$$



He has 2 twenty-cent coins.

Step 1 : Draw diagrams to find the number of marbles in one group



$$5 \times 4 = 20$$

4 groups of 5 = 20

$$20 \div 4 = 5$$

Step 2 : Use repeated addition to find the number of marbles in 2 such groups

$$2 \times 5 = 10$$

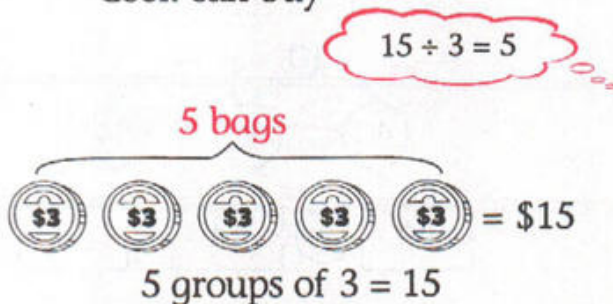
$$5 + 5 = 10$$

There are 10 marbles in 2 such groups.

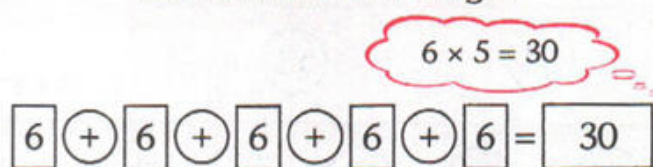
Solution to Question

97

Step 1: Draw diagrams to find the number of bags of oranges Mrs Cook can buy



Step 2: Use repeated addition to find the number of oranges

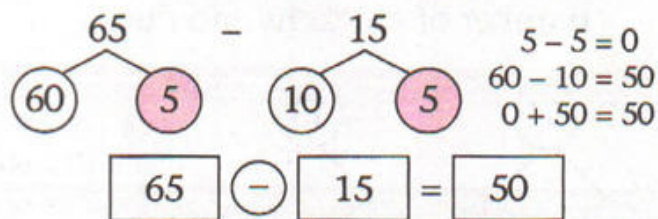


She can buy 30 oranges altogether.

Solution to Question

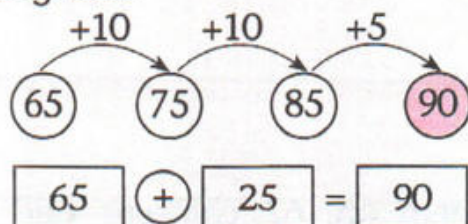
98

(a) Use number bonds find the number of cookies she has at first



(a) She has 50 cookies at first.

(b) Use 'counting on' method to find the number of cookies she has altogether

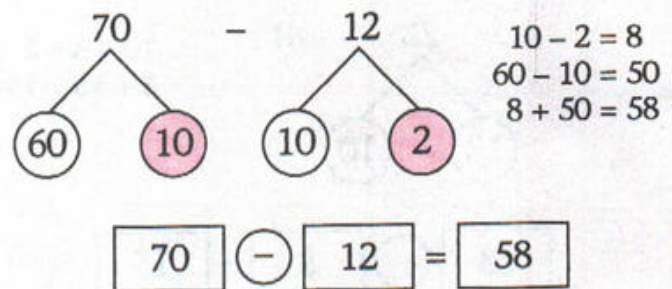


(b) She has 90 cookies altogether.

Solution to Question

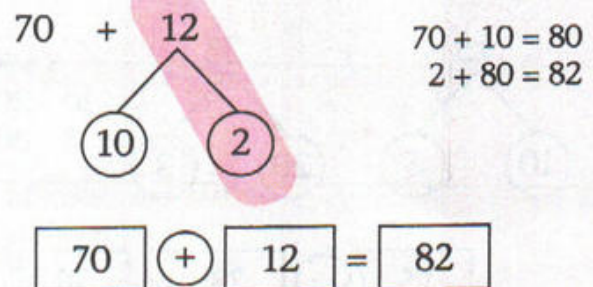
99

(a) Use number bonds to find how much more he has spent than saved



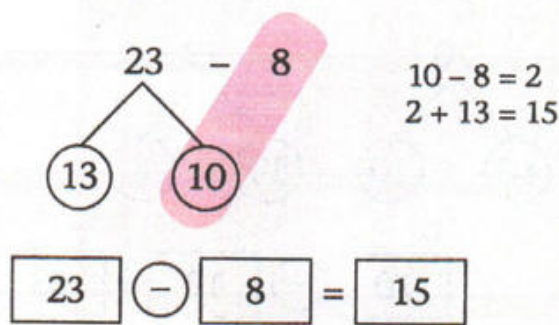
(a) He spends \$58 more than he saves.

(b) Use number bonds to find the amount of money he has at first



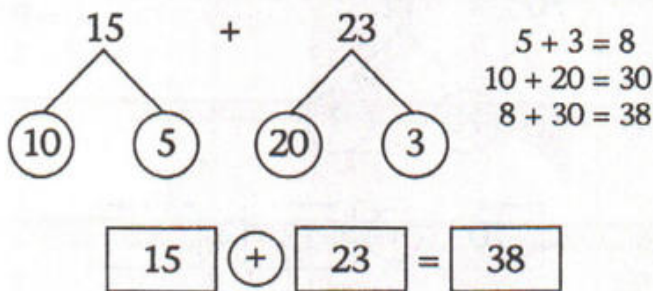
(b) He has \$82 at first.

- (a) Use number bonds to find the cost of the bowl



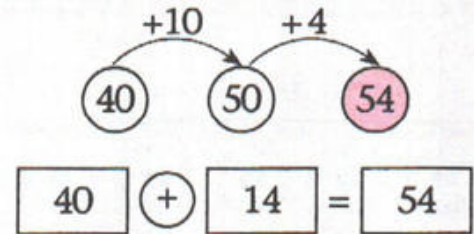
- (a) The bowl costs \$15.

- (b) Use number bonds to find the total cost of the plate and the bowl

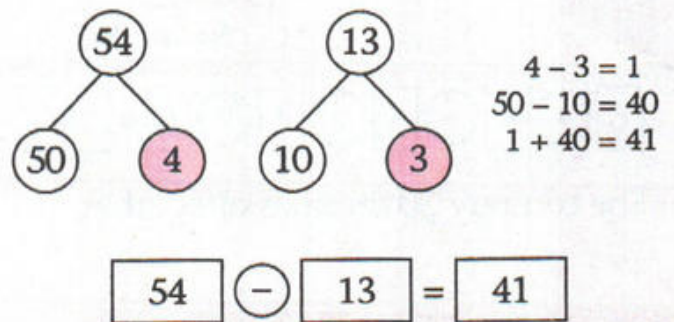


- (b) The total cost of the plate and the bowl is \$38.

- (a) Step 1: Use 'counting on' method to find the total number of chickens

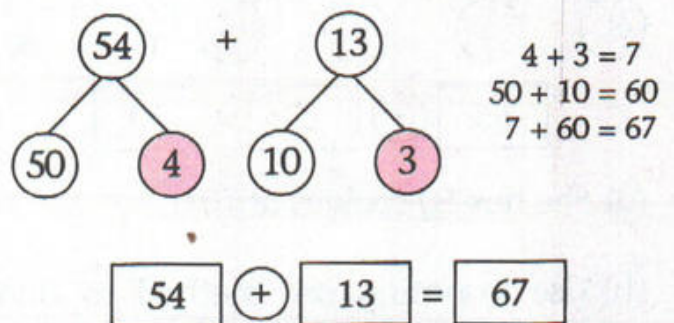


- Step 2: Use number bonds to find how many more chickens than ducks there are



- (a) There are 41 more chickens than ducks on the farm.

- (b) Use number bonds to find the total number of chickens and ducks



- (b) There are 67 chickens and ducks altogether.