

Monday 1/3/21

Lesson  
15

# Solving Word Problems


## In Focus

A baker made 2750 chocolate cookies and 1638 vanilla cookies.  
He sold 3195 cookies altogether.  
How many cookies did he have left?

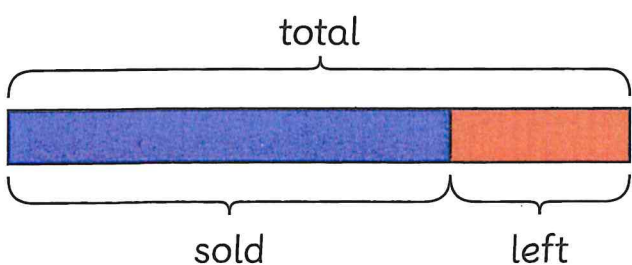
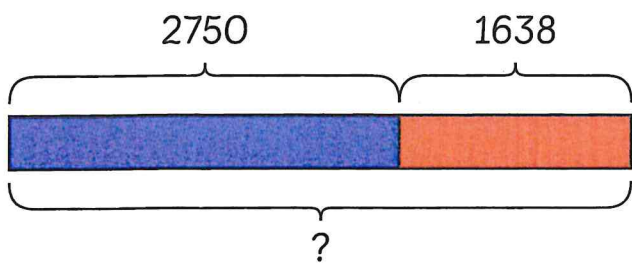


## Let's Learn

### 1 Understand the problem

Who?	 baker
What?	 cookies

### Make a plan



Find the total number of cookies he made.

Then, subtract the number of cookies sold.



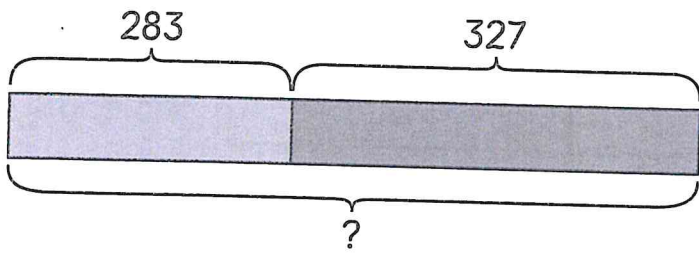
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## Worksheet 15

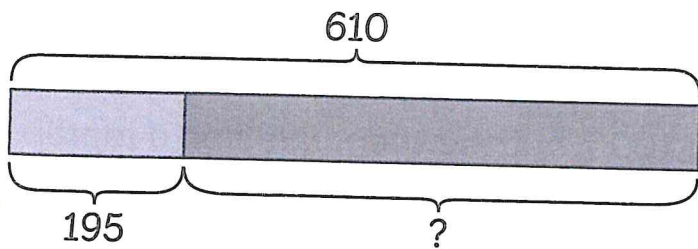
### Solving Word Problems

Solve.

- 1 There are 283 boys and 327 girls in the hall.  
195 children leave the hall.  
How many pupils are left in the hall?



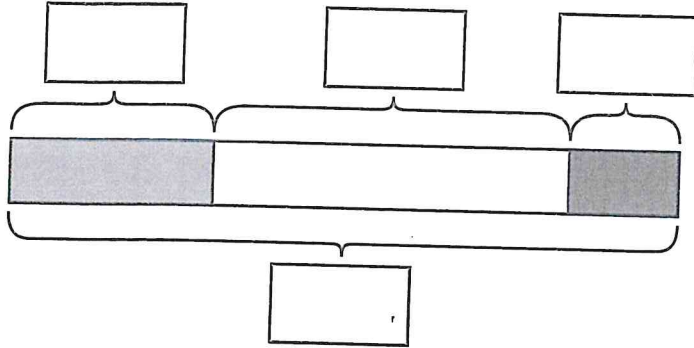
$$\square \bigcirc \square = \square$$



$$\square \bigcirc \square = \square$$

There are  pupils left in the hall.

- 2 There are 8265 books in a school library.  
 2678 are fiction books and 4679 are non-fiction books.  
 The rest are reference books.  
 How many reference books are there in the library?



$$\square \ominus \square = \square$$

$$\square \ominus \square = \square$$

There are  reference books in the library.

- 3 Hannah had £2327 in her savings account.  
 This month she saved another £1096, but she spent £999 on a laptop.  
 How much money does she have left in her account?

# 2-step problems

Solve 2-step word problems in contexts



The children in Year 3 and 4 are taking part in a school play.

- 1 On Thursday Year 3 sold 45 tickets, on Friday they sold 80 tickets and on Saturday they sold 200 tickets. How many did they sell altogether?
- 2 The first part of the play lasted 63 minutes and the second part lasted 59 minutes. The interval was 30 minutes. How long did the whole play last, including the interval?
- 3 Year 4 made 300 cakes to sell. 48 were sold on Thursday and 170 on Friday. How many were left?

- 1 On Thursday Year 4 sold 163 tickets, on Friday they sold 140 tickets and on Saturday they sold 300 tickets. How many did they sell altogether?
- 2 The popcorn was selling quickly. At 7 p.m. there were 300 packs. By 7.30 p.m. 137 had been sold. By 8.00 p.m. another 162 were sold. How many were left?
- 3 The school printed 430 programmes. On Thursday they sold 274, and 150 were sold the next night. How many were left?
- 4 After the play on Saturday the 340 seats had to be put away. 60 were put away in the morning, and 73 at lunchtime. How many were still out?

- 1 In the week before the play the children spent 320 minutes rehearsing. They did 125 minutes on Monday, 94 minutes on Tuesday and the rest on Wednesday. How long was Wednesday's rehearsal?
- 2 The school hopes to raise £450 from the play. They made £238 on Thursday and £170 on Friday. How much more do they need to reach their target?
- 3 The teachers helped with the preparations for the play. They spent 98 minutes decorating the hall, 260 minutes getting the stage ready and 380 minutes making the costumes. How long did their preparations take?





Tuesday 2/3/21

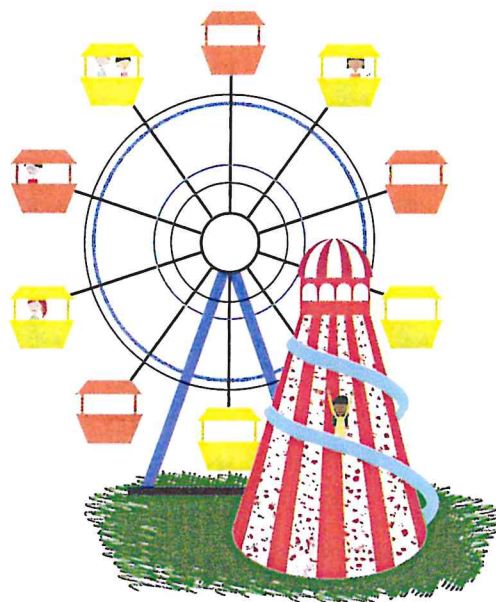
# Solving Word Problems

Lesson  
16

## In Focus


On Saturday, 3018 people attended a funfair.  
850 more people attended the funfair on  
Saturday than attended it on Sunday.

Altogether, how many people attended the  
funfair over the two days?

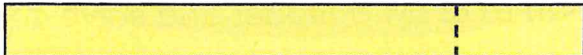


## Let's Learn

### 1 Understand the problem

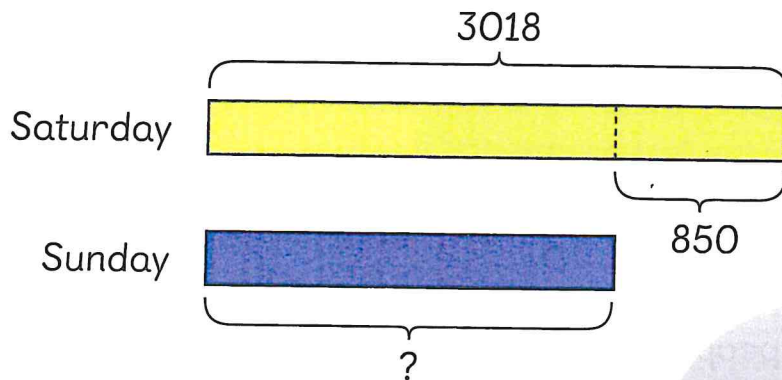
Who?	 people
What?	funfair

### Make a plan

Saturday 

Sunday 

## Carry out the plan

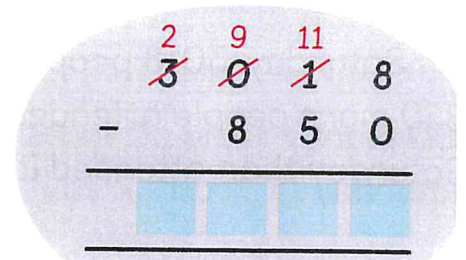


$$3018 - 850 = 2168$$

2168 people attended the funfair on Sunday.

Saturday	·	3	0	<sup>1</sup> 1	8
Sunday	+	2	1	6	8
		5	1	8	6

$$3018 + 2168 = 5186$$



Altogether, 5186 people attended the funfair over the two days.

## Activity Time

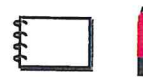
### Work in groups of 4.

- ① Make two 2-step word problems involving addition and subtraction within 10 000. Here are some words to help.

more      fewer      marbles      left      altogether

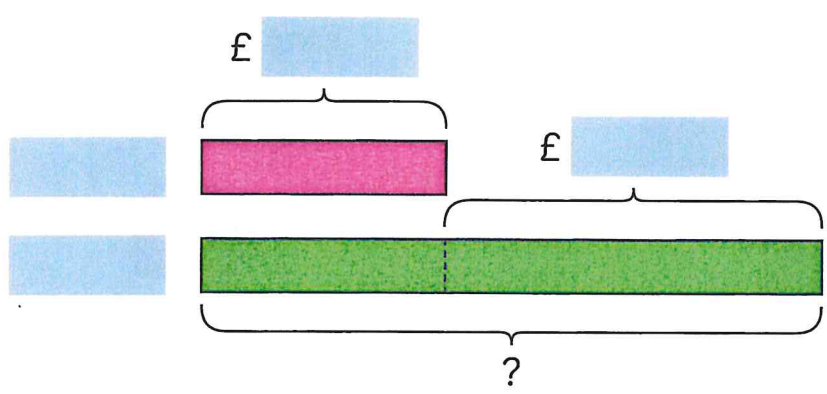
- ② Get another group to draw a model and solve each problem.
- ③ Check whether the other group solves your problems correctly.

What you need:



# Guided Practice

1 Ruby's mother bought a necklace and a ring.  
 The necklace cost £1299.  
 She paid £2000 less for the necklace than she paid for the ring.  
 How much did she pay for the necklace and the ring altogether?

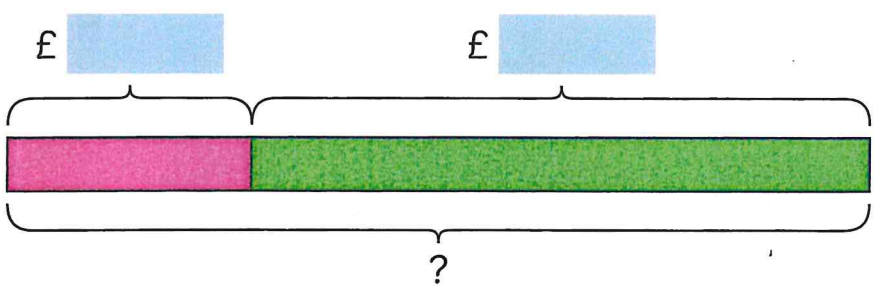


Which costs more, the necklace or the ring? Should we add or subtract to find the cost of the ring?



□ ○ □ = □

The ring cost £ □.



Should we add or subtract to find the total cost of the necklace and the ring?



□ ○ □ = □

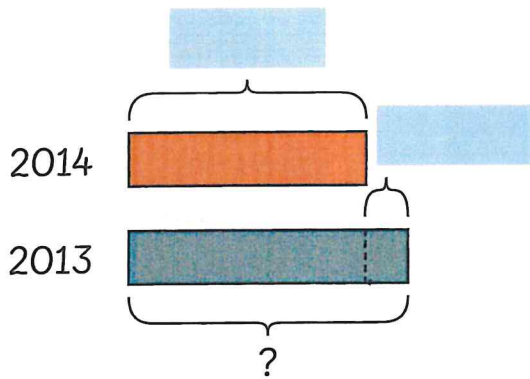
Altogether, she paid £ □ for the necklace and the ring.

2

There were 1589 participants in a contest in 2014.

In 2013, there were 279 more participants in the contest than there were in 2014.

How many people participated in the contest over the two years?

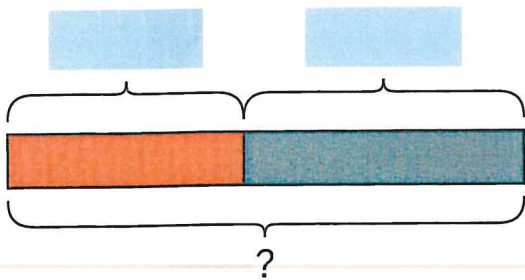


$$\square \ominus \square = \square$$

What should we find first?



$\square$  people participated in the contest in 2013.



$$\square \oplus \square = \square$$

Should we add or subtract to find the total number of participants in the two years?



The total number of people who participated in the contest over the two years is  $\square$ .

Work backwards to check your answer.



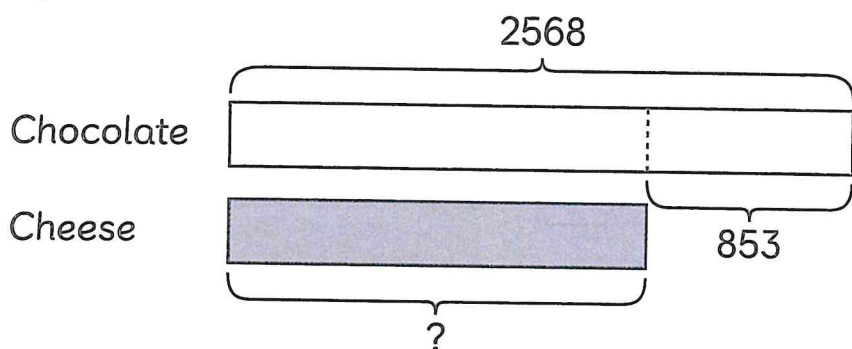
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## Worksheet 16

### Solving Word Problems

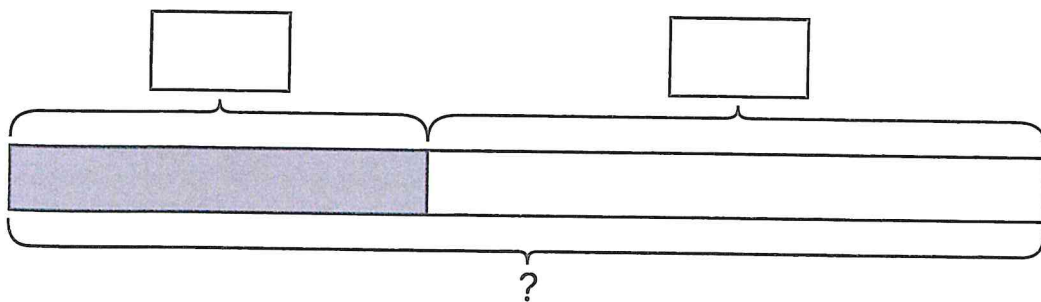
Solve.

- 1 A baker baked 2568 chocolate buns.  
He baked 853 fewer cheese buns than chocolate buns.  
How many buns did he bake altogether?



$$\square \ominus \square = \square$$

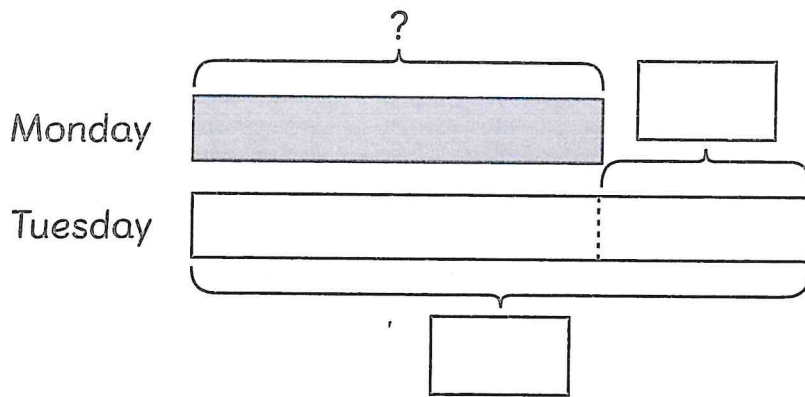
He baked  cheese buns.



$$\square \oplus \square = \square$$

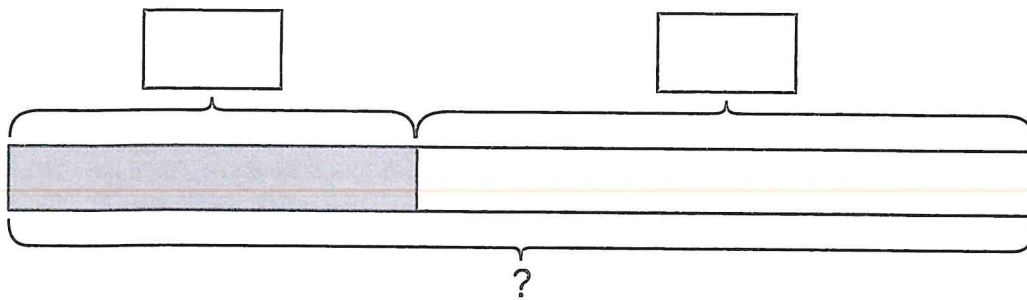
He baked  buns altogether.

- 2 4824 people visited the museum on Tuesday.  
 1879 more people visited the museum on Tuesday than visited on Monday.  
 How many people visited the museum over the two days?



$$\square \circ \square = \square$$

There were  visitors on Monday.



$$\square \circ \square = \square$$

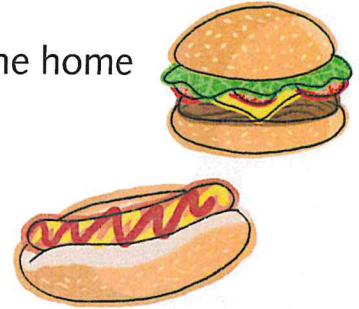
people visited the museum over the two days.

## Football problems

Solve 2-step problems in contexts, deciding which operations and methods to use and why



- 1 At the football match, 463 fans are buying a cup of tea and 254 fans are buying coffee. How many people are buying a hot drink?
- 2 637 fans have arrived so far. 451 of these are supporting the home team. How many are supporting the away team?
- 3 382 fans are in one part of the football ground and then another 140 arrive. How many fans are there now?
- 4 £275 is spent on hot dogs and £443 is spent on burgers. How much money was spent altogether?



- 1 1748 fans are sitting in one part of the football ground, 1325 in another part and 1583 in another. How many altogether?
- 2 The snack stall takes £3450. £890 was spent on drinks, £1650 was spent on cooked food and the rest was spent on cold food. How much was spent on cold food?
- 3 Out of 4820 fans, 1884 are men, 1798 are women and the rest are children. How many children were at the match?
- 4 3896 fans have arrived so far, then 2010 more arrive and then a further 2600. How many altogether?

- 1 The fans like to wear hats and scarves to support their team. Out of 5400 fans, 2150 are wearing hats only, 1890 are wearing scarves only and the rest are wearing both. How many fans are wearing a hat and a scarf?
- 2 The Snack Stall starts the day with 5870 hot dogs to sell. After an hour, it has 3276 left and after 2 hours, it has 1085 left. How many hot dogs were sold?
- 3 3874 fans are sitting down, 4759 are standing and 1673 are away from their seats getting food. How many fans altogether?







# Wednesday 3/3/21

## Solving Word Problems

Lesson  
17

### In Focus

	started with 2050
	started with 2519





 gave  490.  
Now, who has more?  
How many more?

What is a suitable item to go with the numbers?

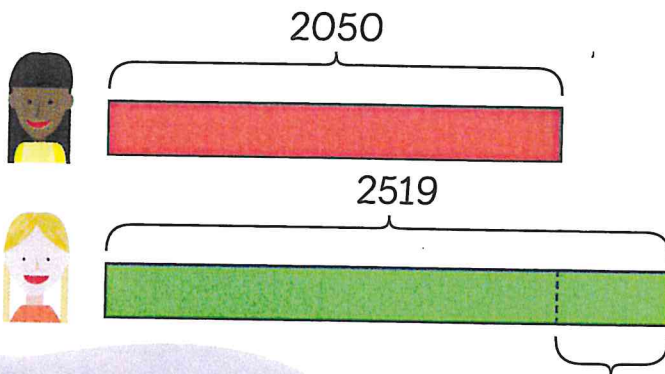


### Let's Learn

#### 1 Understand the problem

Who?	 
What?	 → 

Make a plan and carry it out



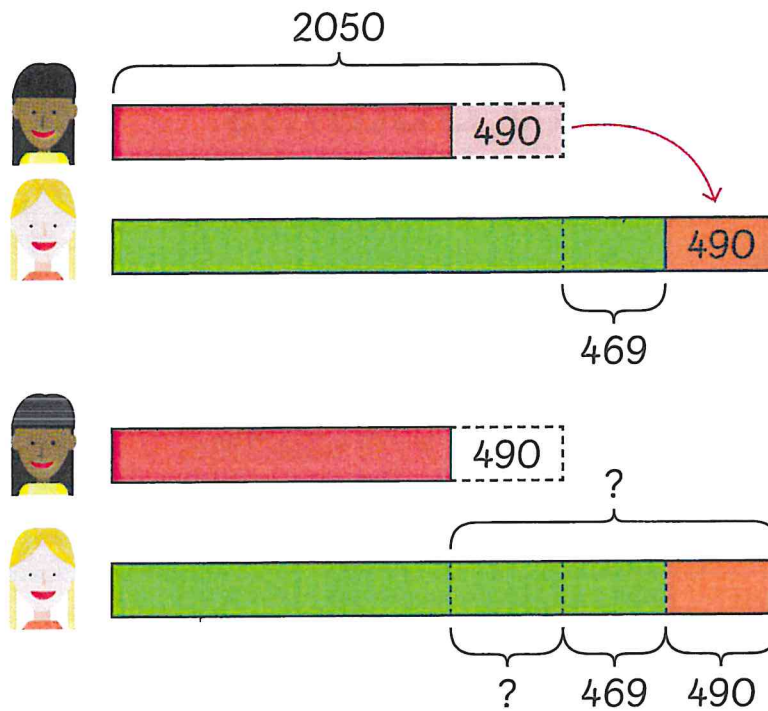
$$2519 - 2050 = 469$$

This can be found.



Check

$$\begin{array}{r} 2050 \\ + 469 \\ \hline 2519 \end{array}$$



 has more.

$$490 + 469 + 490 = 1449$$

 has 1449 more.

## Guided Practice

1 At first,  had 3 more  than  had.



Then,  gave  2 .

Who had more  in the end?

How many more?

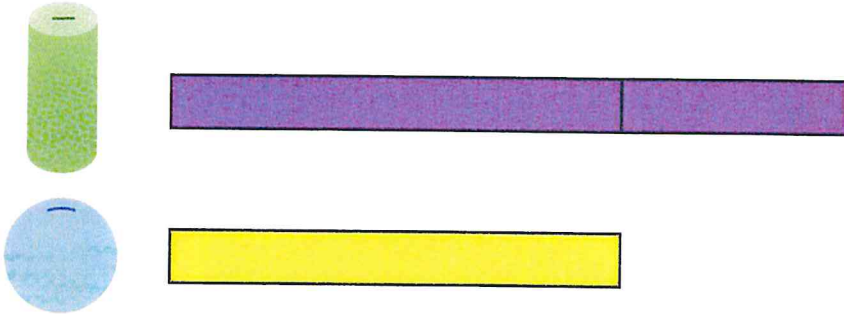


2 Sam's father collects coins.

There were 152 more coins in  than in .

After he moved 100 coins from  to , which coin box had more coins?

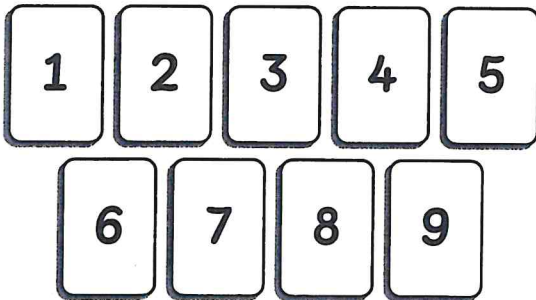
How many more?



Complete Worksheet 17 – Page 51 – 53

### Mind Workout

Use



to make two 4-digit numbers.

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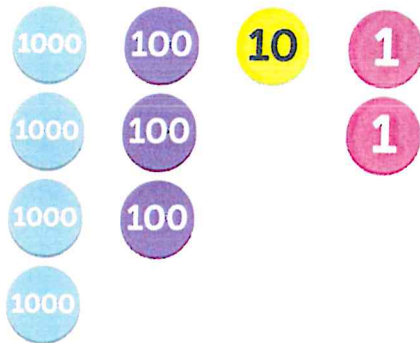
Subtract the smaller number from the greater number.

Try to make the difference as small as possible.

				-					= ?
--	--	--	--	---	--	--	--	--	-----

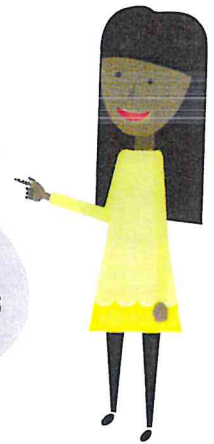
## Maths Journal

Subtract 1975 from 4312.



$$4312 - 1975$$

There are not enough ones, tens and hundreds to subtract.



Explain how 4312 can be renamed to carry out the subtraction.

### I know how to...

- add numbers without renaming.
- add numbers with renaming.
- add numbers mentally.
- subtract numbers without renaming.
- subtract numbers with renaming.
- subtract numbers mentally.
- solve word problems involving addition and subtraction.

Self Check

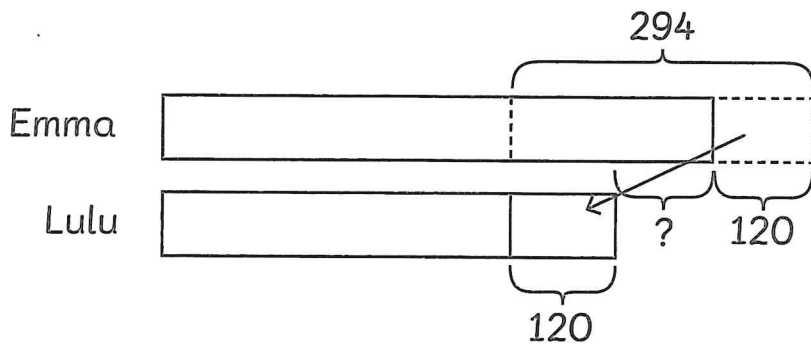
Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Worksheet 17

### Solving Word Problems

Solve.

- 1 Emma has 294 more stickers than Lulu has.  
If Emma gives 120 stickers to Lulu, who will have more stickers?  
How many more stickers will she have?



$$\square \bigcirc \square = \square$$

$$\square \bigcirc \square = \square$$

has more stickers. She has  more.

- 2 Sam had £463 more than Charles.  
Charles then gave £246 to Sam.  
How much more money did Sam have than Charles in the end?

- 3 There was 2438 ml of water in a container.  
There was 3987 ml of water in a bucket.  
805 ml of water from the bucket was poured into the container.  
Which of the two has more water now?  
How much more?

- 4 Box A and Box B had some coins inside them.  
Amira moved 293 coins from Box A into Box B.  
Box B then had 501 more coins in it than Box A had.  
Which box had more coins at first? How many more?

## Mind Workout

Date: \_\_\_\_\_

Sam is using a calculator to find the difference between two numbers.

$$8000 - 3807 = ?$$

However, the zero button on the calculator is faulty.  
Suggest two ways he can find the answer without using the zero button.  
Explain your answer.



Oh no...  
I can't key in  
the digit '0'...



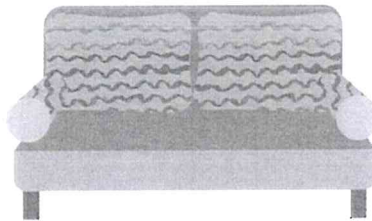
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## Review 2

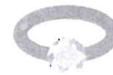
1 Fill in the blanks.



Bicycle  
£1099



Sofa  
£2150



Ring  
£5988



Television  
£875

- (a) The total cost of the ring and the sofa is .
- (b) The difference in price between the bicycle and the sofa is .
- (c) The total cost of 2 bicycles is .
- (d) Which three items together cost more than £7000 but less than £8000 in total?

- (e) Which two items have the smallest price difference? What is the difference?

2 Add or subtract.

$$\begin{array}{r} \text{(a)} \quad 3 \quad 4 \quad 6 \quad 6 \\ + \quad 2 \quad 5 \quad 1 \quad 2 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(b)} \quad 5 \quad 4 \quad 7 \quad 5 \\ + \quad 2 \quad 3 \quad 8 \quad 5 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(c)} \quad 3 \quad 6 \quad 8 \quad 5 \\ + \quad 5 \quad 6 \quad 4 \quad 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(d)} \quad 2 \quad 9 \quad 6 \quad 8 \\ + \quad 6 \quad 0 \quad 8 \quad 9 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(e)} \quad 5 \quad 8 \quad 4 \quad 5 \\ - \quad 2 \quad 5 \quad 1 \quad 8 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(f)} \quad 6 \quad 6 \quad 2 \quad 3 \\ - \quad 5 \quad 2 \quad 3 \quad 9 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(g)} \quad 7 \quad 4 \quad 8 \quad 6 \\ - \quad 4 \quad 5 \quad 8 \quad 9 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} \text{(h)} \quad 8 \quad 0 \quad 3 \quad 8 \\ - \quad 2 \quad 5 \quad 3 \quad 9 \\ \hline \\ \hline \end{array}$$

Solve.

- 3 A bakery baked 2352 chocolate biscuits and 1203 vanilla biscuits.  
They sold 1897 biscuits.  
How many biscuits did they have left?

- 4 There are 2107 pupils in School A.  
There are 587 fewer pupils in School A than there are in School B.  
How many pupils are there in School A and School B altogether?

Thursday 4 / 3 / 21

Lesson  
13

# Solving Word Problems

## In Focus

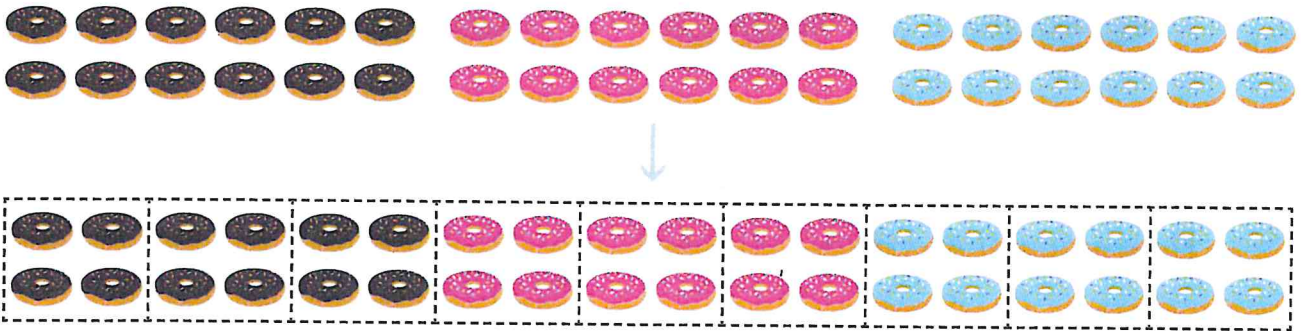


Charles repacks the doughnuts in these 3 boxes into packages of 4 doughnuts each.

How many packages does he get?

## Let's Learn

### 1 Elliott's method



Elliott gets 9 packages.

### 2 Amira's method

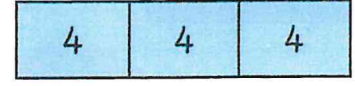
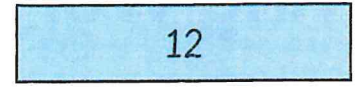
$$3 \times 12 = 36$$

$$36 \div 4 = 9$$

Amira gets 9 packages.

$$\text{Check: } 9 \times 4 = 36$$

### 3 Hannah's method



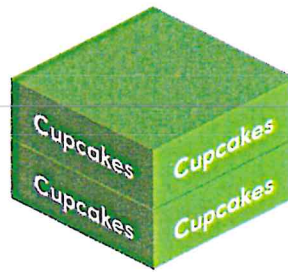
$$12 \div 4 = 3$$

So,  $36 \div 4 = 3 + 3 + 3 = 9$

Hannah gets 9 packages.

## Guided Practice

1

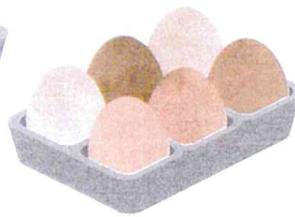


Lulu puts all of these cupcakes onto smaller plates.  
There are 6 cupcakes on each plate.  
How many plates does Lulu use?

What if there are 5  
cupcakes on each plate?



2



Eggs come in small boxes and large boxes.

How many eggs are there in 7 small boxes and 9 large boxes?

# Solving Word Problems

## Lesson 14

### In Focus

Holly used to have enough toy soldiers to form 7 rows of 11 soldiers.



She has since lost 14 toy soldiers.

Can she still form 7 rows with an equal number of soldiers in each row?

### Let's Learn

1  $7 \times 11 = 77$

She used to have 77 toy soldiers.

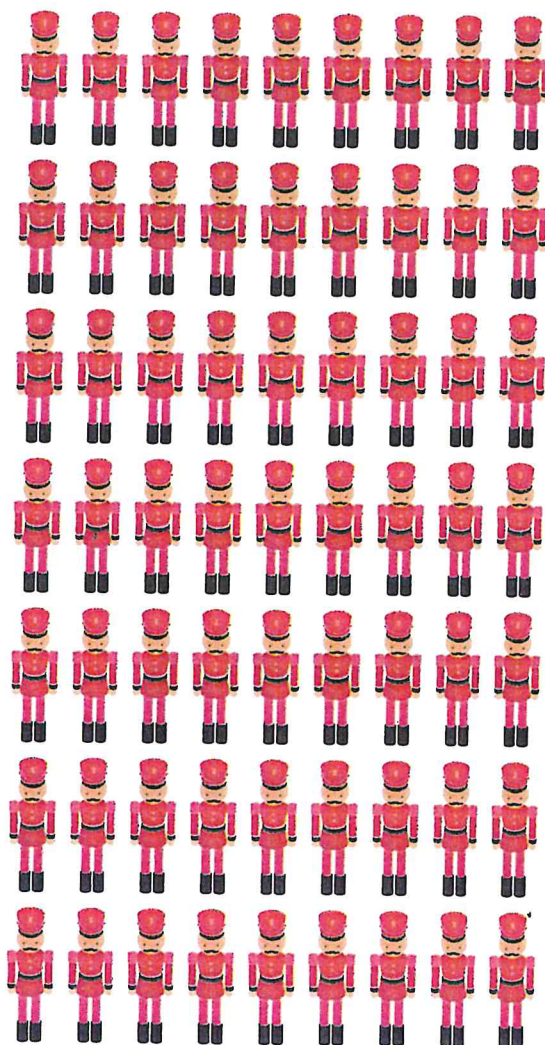
$$77 - 14 = 63$$

She has 63 toy soldiers now.

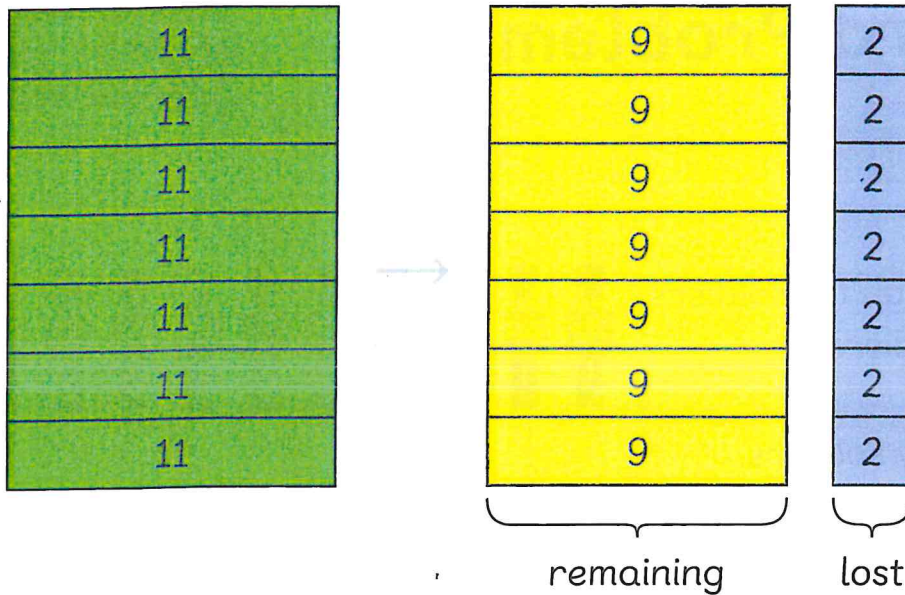
$$63 = 7 \times 9$$

She can form rows like this:

Is there  
another way?



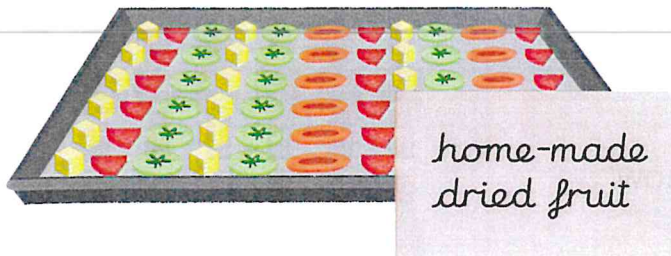
2



She can form 7 rows of 9.

## Guided Practice

1



How many pieces of home-made dried fruit can fit onto this tray?

2

Miss Lynn asked each child to collect the same number of square tiles from a box.



shared 60 tiles equally.

Each of them then made a rectangle using all their square tiles. Show what each of them could have made.

Is it possible that each rectangle is different?



Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

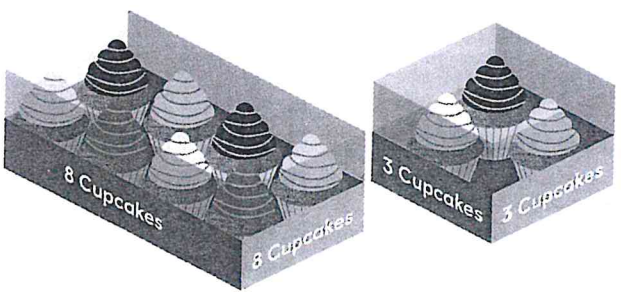
# Worksheet 13

## Solving Word Problems

Solve.

1 At a bakery, cupcakes are sold in small boxes or large boxes.

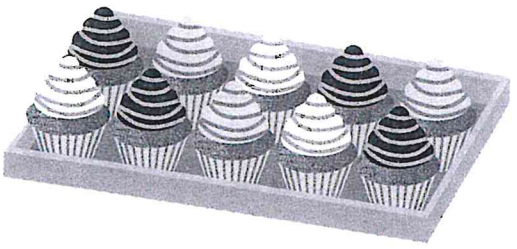
- (a) Amira bought 6 large boxes and 4 small boxes of cupcakes for her family party.  
How many cupcakes did she buy altogether?



<input type="text"/>	×	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	×	<input type="text"/>	=	<input type="text"/>
<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>

Amira bought  cupcakes altogether.

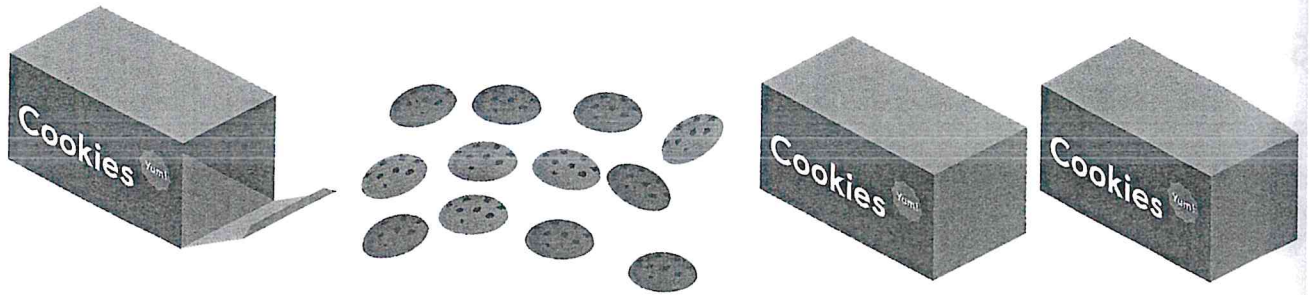
- (b) Back at home, Amira put all the cupcakes she bought onto trays.  
There were 10 cupcakes on each tray.  
How many trays did she use?



$$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

Amira used  trays.

- 2 Hannah brought 3 boxes of chocolate cookies to school to share with her friends.



- (a) There were 12 cookies in each box.  
Hannah shared all the cookies with her friends.  
Each of them received 6 cookies.  
How many friends did Hannah share her cookies with?

$$\boxed{\phantom{00}} \times \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

$$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

$$\boxed{\phantom{00}} - \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

Hannah shared her cookies with  friends.

- (b) If Hannah shared the cookies with 8 friends instead, how many cookies would each person receive?

$$\boxed{\phantom{00}} + \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

$$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

Each person would receive  cookies.

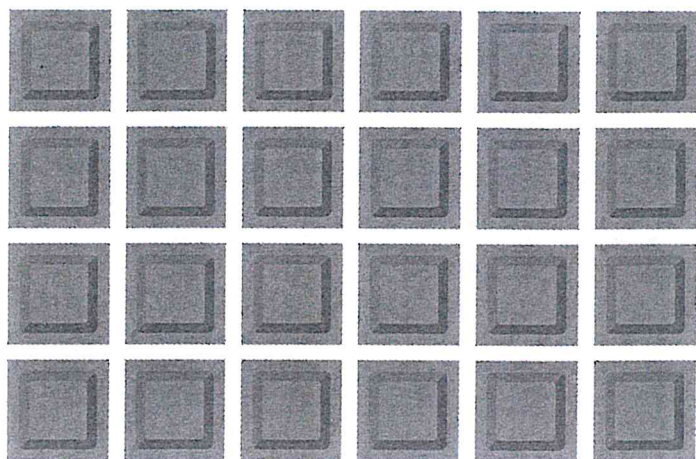
Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Worksheet 14

### Solving Word Problems

Solve.

- 1 Elliott takes some square tiles from a box to form a square. He wants to make a square that has 6 rows with 6 square tiles in each row. However, Elliott can only form 4 rows of 6 square tiles.



- (a) How many more square tiles does he need to form the square?

$$\square \times \square = \square$$

He needs  more square tiles.

- (b) Elliott takes 30 more square tiles from the box.  
Now he wants to form a square with all the tiles.  
After forming the largest square he can, how many square tiles are left over?

$$\square \times \square = \square$$

$$\square + \square = \square$$

$$\square \times \square = \square$$

$$\square - \square = \square$$

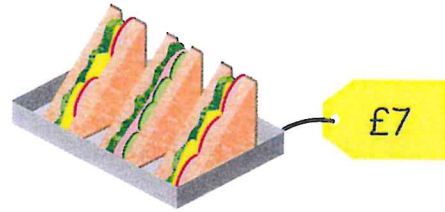
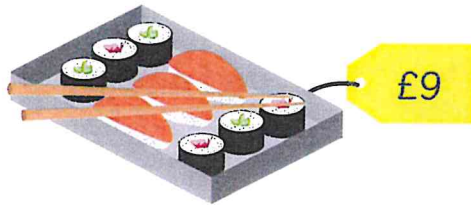
$\square$  square tiles are left over.

# Friday 5/3/21

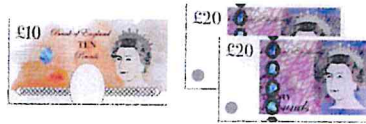
## Solving Word Problems

Lesson  
15


### In Focus



Ravi paid for several boxes of food with  
Find out how much change there was.



### Let's Learn

1 What if he bought only  £9 ?

$$\square \times \text{£}9 = \square$$

$$5 \times \text{£}9 = \text{£}45$$

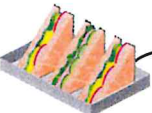
$$6 \times \text{£}9 = \text{£}54$$

$$\text{£}50 - \text{£}45 = \text{£}5$$



This is more  
than £50.

If he bought 5 boxes of  £9 , his change was £5.

2 What if he bought only  £7 ?

$$\square \times \text{£}7 = \square$$

$$7 \times \text{£}7 = \text{£}49$$

$$8 \times \text{£}7 = \text{£}56$$

$$\text{£}50 - \text{£}49 = \text{£}1$$



This is more  
than £50.

If he bought 7 boxes of  £7 , his change was £1.

3 What if he bought 3 boxes of  £9 and 3 boxes of  £7?

$$3 \times \pounds 9 = \pounds 27 \qquad 3 \times \pounds 7 = \pounds 21$$

$$\pounds 27 + \pounds 21 = \pounds 48$$

$$\pounds 50 - \pounds 48 = \pounds 2$$

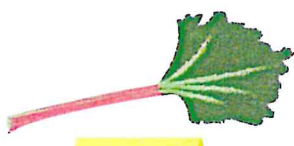
If he bought 3 boxes of  £9 and 3 boxes of  £7, his change was £2.

### Guided Practice

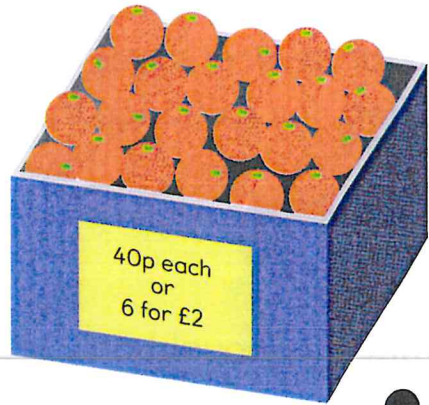
1






£8 per kg



£9 per kg



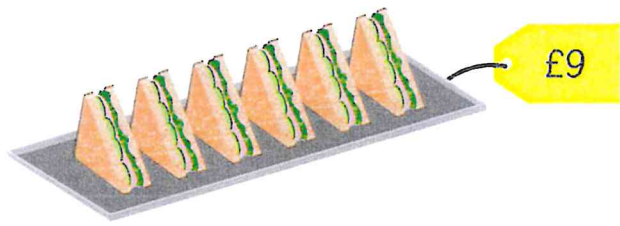
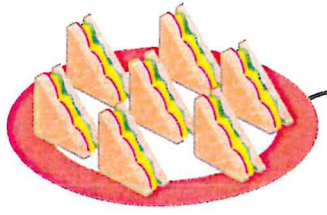
Find the cost of each.

- (a) 6 kg of 
- (b) 2 kg of 
- (c) 30 

What is the total cost of all three items?



2



Charles needs at least 20 sandwiches for his family. How much does he need to pay?

# Solving Word Problems

## Lesson 16










### In Focus



Pick a coin and then pick a note.  
 Add them together.  
 Try different combinations.  
 How many different amounts are possible?

### Let's Learn

1

						
	•	•	•	•	•	•
	•	•	•	•	•	•
	•	•	•	•	•	•

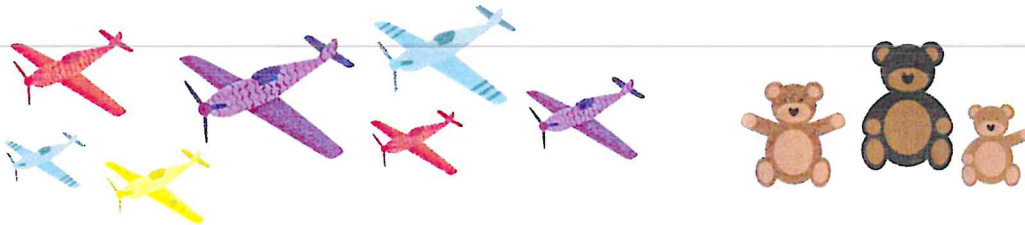
For each note, there are 6 ways to combine it with a coin.



There are  $6 + 6 + 6$  or  $3 \times 6$  different combinations.  
The 18 amounts are all different.

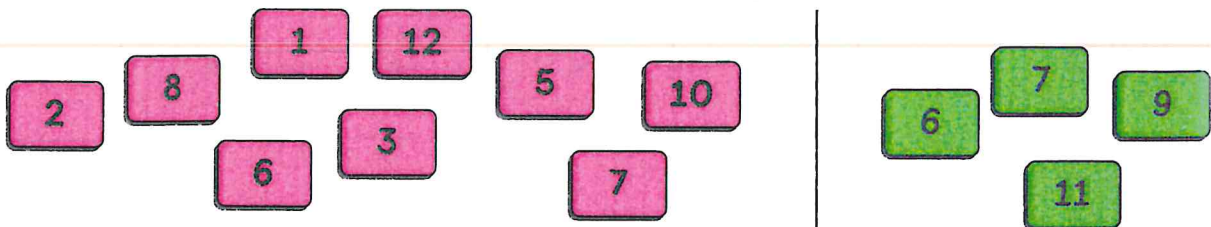
## Guided Practice

1



A small gift box is made up of a toy plane and a teddy bear.  
How many different ways are there to pack the gift box?

2



Pick a red card then pick a green card.  
Make a multiplication equation.

$$\text{Red Card} \times \text{Green Card} = \text{Blue Card}$$

How many different equations are possible?

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Worksheet 15

### Solving Word Problems

Fill in the blanks.



Pepperoni Pizza	£12
Chicken Pizza	£9
Mushroom Pizza	£7
Extra Topping	£2

1 Find the cost of the pizzas.

(a) Emma's pizzas cost .



I want four mushroom pizzas with one extra topping on each.

(b) Charles' pizzas cost



I want two pepperoni pizzas and three chicken pizzas, all without extra toppings.

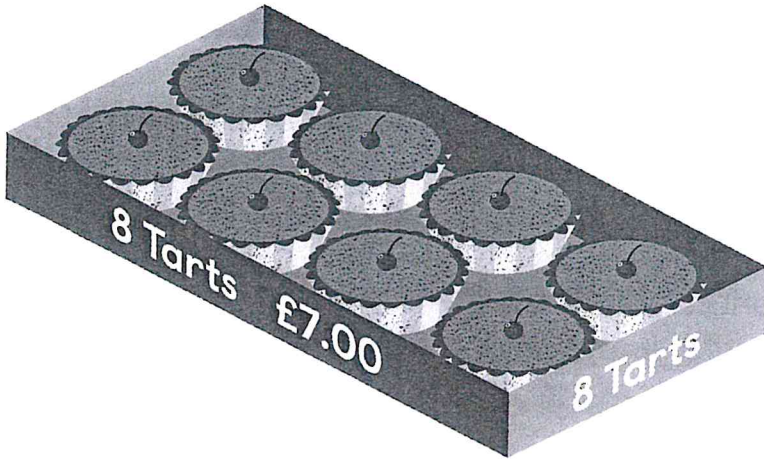
(c) Lulu's pizzas cost

I want five mushroom pizzas without extra toppings and one pepperoni pizza with an extra topping.



(d) The three groups of pizzas cost  in total.

2 Sam wants to buy at least 75 fruit tarts for a party with his friends.



How much does Sam need to pay?

$$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}} \text{ remainder } \boxed{\phantom{00}}$$

$$\boxed{\phantom{00}} + \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

$$\boxed{\phantom{00}} \times \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

Sam needs to pay .

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

## Worksheet 16

### Solving Word Problems

Solve.

- 1 The teacher wants to pick one boy and one girl from the 10 children. How many different pairs could she choose?



$$\square \times \square = \square$$

There are  different pairs.

- 2 Ruby wants to buy a meal and a drink. How many different combinations can she choose?

**Yum Lunch**

<u>Meal</u>	<u>Drinks</u>
Hamburger	Soda
Pasta	Fruit Juice
Fish and Chips	Tea
Fried Chicken	
Pizza	

$$\square \times \square = \square$$

There are  different combinations.