

1 Adding and subtracting near doubles

We are learning to solve addition and subtraction problems where the numbers are easily related to near doubles.



Different coloured counters, tens frames (Material Master 4-6) or a Slavonic abacus.

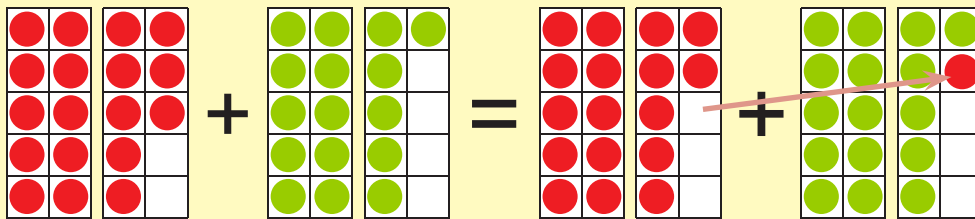
Check up

Doubles and halves page 255
 Questions 1a, 3 and 5



Example

Tom had 18 red plums.
 Todd gave him 16 green ones.
 How many plums did he have then?



$$18 + 16 = 17 + 17$$

$$\begin{aligned}
 &= 10 + 10 + 7 + 7 \\
 &= 20 + 14 \\
 &= 20 + (10 + 4) \\
 &= 30 + 4 \\
 &= 34
 \end{aligned}$$



I know that
 $10 + 10 = 20$ and
 $7 + 7 = 14$



If I take a red counter and put it on the green tens frame there will be 17 in each pile.

Tom had 34 plums.

Activity



- 1 a Look at the example above.
 Discuss with a classmate how Millee made the numbers into a double.
- b Discuss how you could make $12 + 10$ into a double.
 Show your thinking with a diagram.



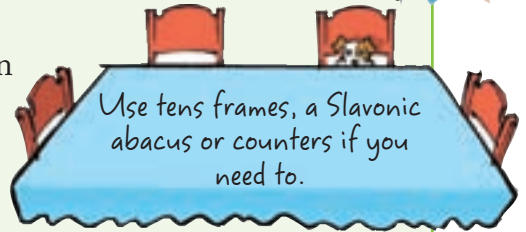
2 Show a classmate how to work these out.

- a $4 + 5$ b $7 + 8$ c $9 + 8$ d $8 + 6$
 e $11 + 10$ f $14 + 12$ g $17 + 15$ h $18 + 16$
 i $13 + 14$ j $16 + 17$ k $18 + 17$ l $15 + 16$

I look for the smallest or easiest number to double. Then I work out what to add on or take off.



3 Discuss with a classmate how you know when to use doubles facts to solve a problem. What knowledge do you need to know?



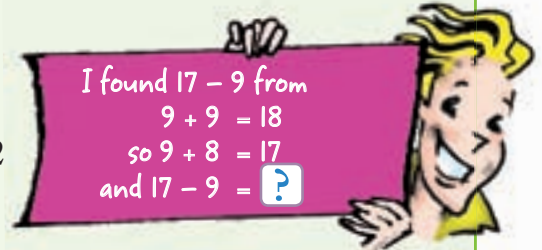
4 Work out the answers to these using doubles. Record how you did each.



- a Belinda had 5 **oranges**. She got 4 more. How many **oranges** did she have then?
 b Max had 8 **bananas**. He got 6 more. How many **bananas** did he have then?
 c Sula had 14 **kiwi fruit**. She was given 15 more. How many **kiwi fruit** did she have then?

5 Show a classmate how to work these out using doubles facts.

- a $17 - 9$ b $15 - 7$ c $23 - 12$
 d $17 - 8$ e $27 - 13$



6 Use doubles facts or near doubles to help find the missing numbers of plums.



	red plums	+	green plums	=	total number of plums
a	18	+	17	=	?
b	24	+	25	=	?
c	16	+	?	=	33
d	17	+	?	=	36

- 7 a Millee and Sam counted the number of apple cores they found on the school field.
On **Monday** Millee found 22 and Sam found 18.
How many did they find altogether on **Monday**?

If I give Sam 2 of mine then ...



- b How many did they find altogether on these other days?

Tuesday Millee 24 Sam 21 **Wednesday** Millee 23 Sam 24

Thursday Millee 18 Sam 23 **Friday** Millee 28 Sam 33



- 8 Discuss with a classmate how you could work these out using doubles. Use words, a diagram or an equation.

a $25 - 12$ b $32 - 15$ c $53 - 25$ d $42 - 23$



- 9 Discuss with a classmate how to find the answers to these using doubles facts.

- a Sam bought **31 apricots**.
Millee bought **34**.
How many did they buy altogether?

- b Sam spent \$63 on fruit.
He spent **\$31** of this on **grapes**.
How much did he spend on other fruit?



10

Wow!
Do these
as **quickly**
as you can!

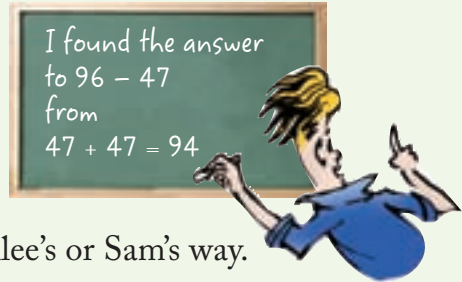
I know my doubles
up to $50 + 50$ so
I can do these
quickly.

- | | | | | | |
|---|-----------|---|-----------|---|-----------|
| a | $17 + 16$ | b | $18 + 17$ | c | $18 + 15$ |
| d | $17 - 9$ | e | $25 - 14$ | f | $16 + 15$ |
| g | $15 + 17$ | h | $35 - 18$ | i | $37 - 19$ |
| j | $33 - 15$ | k | $37 + 35$ | l | $42 - 19$ |
| m | $26 + 27$ | n | $49 - 25$ | o | $39 + 42$ |

11 Millee worked out $103 + 98 = 201$ using doubles.

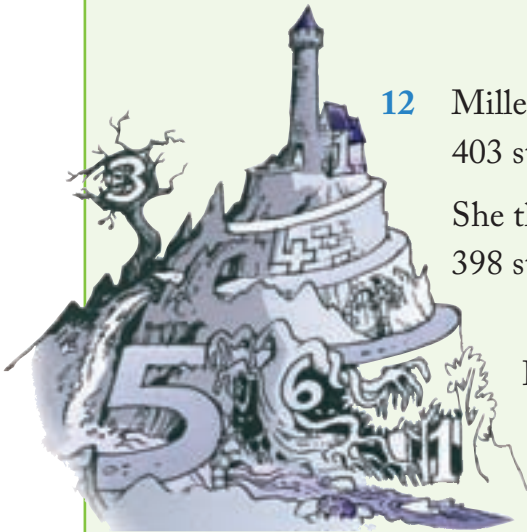
a Explain how she worked out the answer.

b Sam wanted to find the answer to $96 - 47$.
How could Sam carry on and find the answer?



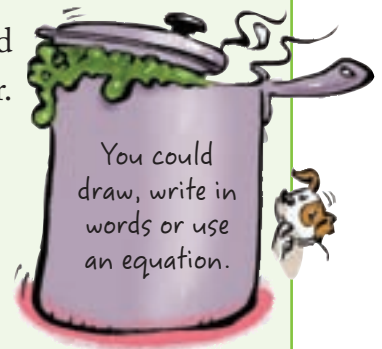
c Find the answers to these using Millee's or Sam's way.
Write down what you did.

- | | | | | | |
|-------------|--------------|-------------|--------------|------------|--------------|
| i | $78 + 82$ | ii | $47 + 49$ | iii | $85 - 43$ |
| iv | $56 + 50$ | v | $80 - 39$ | vi | $201 + 199$ |
| vii | $1000 - 503$ | viii | $200 + 198$ | ix | $600 - 303$ |
| x | $550 + 555$ | xi | $47 + 44$ | xii | $63 + 65$ |
| xiii | $204 + 196$ | xiv | $1000 - 496$ | xv | $995 + 1005$ |



12 Millee dreamed she had climbed 403 steps up to the door of a castle.
She then stepped inside and climbed 398 steps to the top of the tall tower.

How many steps did she climb altogether?



13 Challenge

Make up a number story for each of these and give them to a classmate to solve.

- a** $200 - 102$ **b** $326 + 324$
c $120 - 59$ **d** $1003 + 997$

