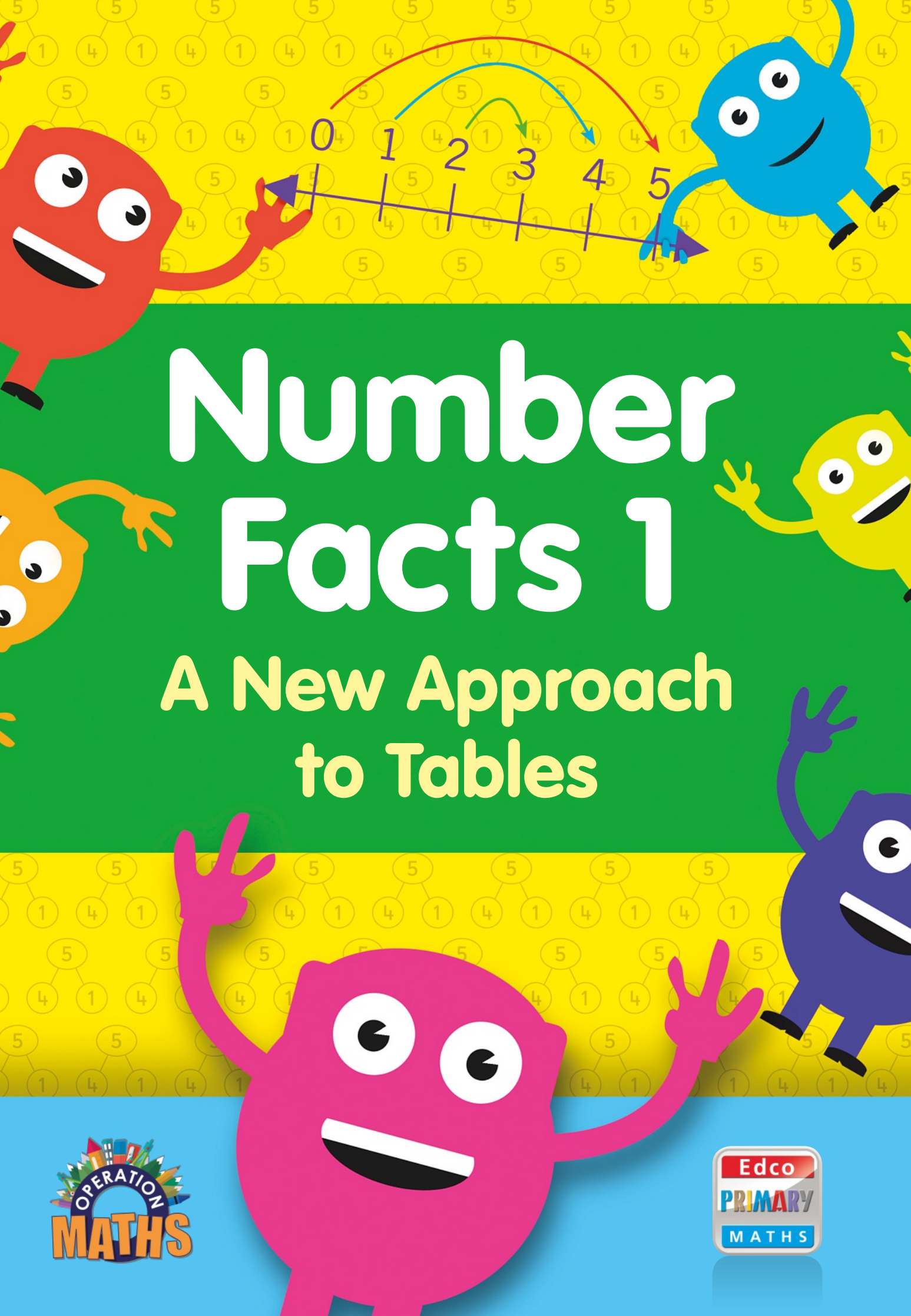

Number Facts 1

A New Approach to Tables

OPERATION MATHS

Edco PRIMARY MATHS

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Introduction for Teachers, Parents and Guardians

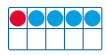
Number Facts is a new series of activity books designed to foster fluency in number facts (or 'tables') for primary school children from First Class. The series features an innovative approach to the acquisition of basic number facts, and teaches children to *understand*, not just *do*, maths.

Traditionally, learning tables has been by rote, but current research suggests that this is ineffective for the majority of children. In contrast, ***Number Facts*** teaches children to visualise numbers and to use images and thinking strategies *to use what they know to solve what they do not know.*

Thinking strategies

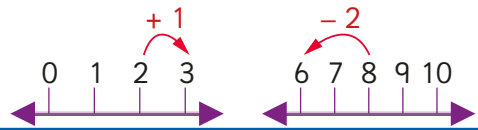
A thinking strategy is a way to think about a process to arrive efficiently at an answer. The thinking strategies that children will learn in this book are outlined below. It is important that children realise that there can often be many different ways to think about the same fact, so they should be encouraged both to identify alternative approaches and to choose their preferred strategy.

(a) Number bonds of 5, 10 and 20 Through concrete and pictorial experiences, children are enabled to identify and remember the different pairs of numbers that combine to make up the numbers 5, 10 and 20. E.g. the number bonds of 5 are: 0 + 5; 1 + 4 and 2 + 3.

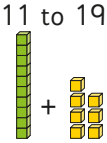


1 + 4

(b) Adding and subtracting 1, 2 and 3 Most young children can mentally **count on and back** one, two or three numbers, but counting on or back more than this can be difficult and inefficient.



(c) Adding and subtracting 10 Children are enabled to understand that the numbers 11 to 19 are made up of **a ten and some units**.
E.g. 17 = 1 ten + 7 units = 10 + 7.
10 + 7 = 17



(d) Adding and subtracting with zero
When you add zero to or subtract zero from a number, **the number does not change**. E.g.
4 + 0 = 4
4 – 0 = 4

(e) Adding and subtracting 9 If 10 + 7 = 17, then 9 + 7 = 16 (one less). Similarly, if 17 – 10 = 7, then 17 – 9 = 8 (one more). Also, children can **make a ten**, e.g.

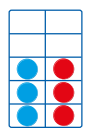
9 + 7 → 10 + 6 = 16

(f) Adding and subtracting 8 and 7 As with adding and subtracting 9, the children can **make a ten**, e.g.

8 + 7 → 10 + 5 = 15

7 + 6 → 10 + 3 = 13

(g) Doubles Through concrete and pictorial experiences, children are enabled to identify doubles from their **shapes** on a ten frame, e.g. 3 + 3 = 6.

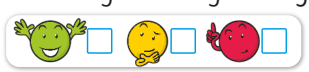


(h) Near doubles If 6 + 6 = 12, then 6 + 7 = 13 (one more). Similarly, if 9 + 9 = 18, then 9 + 8 = 17 (one less).

(i) Adding and subtracting 5 The extensive use of a ten frame enables children to visualise number facts. E.g. the number 9 displayed on a ten frame is shown as 5 on the top and 4 on the bottom. Therefore, 9 = 5 + 4.

(j) Adding and subtracting 6 and 4 If 5 + 4 = 9, then 6 + 4 = 10 (one more) and 4 + 4 = 8 (one less).

Features of the series

- Each weekly unit includes activities for Monday to Thursday.
- **Challenge** Most days include a Challenge section to extend the more able children.
- **Self-assessment** Children can assess their own learning at the end of every week by ticking the appropriate icon:  .
- **Revision and Assessment** Separate Revision and Assessment sections are included at the back of the book for completion at regular intervals. A note at the foot of the page directs teachers and children to the appropriate section.
- **Personal Progress Chart** Children can record their assessment scores in this chart at the back of the book.
- **Family Card Games** Parents and children can play these card games at home to reinforce the number facts taught in each unit. The page footers indicate which game should be played for each unit.

Note: traditionally, learning tables was emphasised for numbers up to 10 + 10. However, the thinking strategies approach used in this book enables children to apply these mental computation skills to numbers beyond this traditional ceiling, e.g. 23 + 9, 46 + 9, etc.

Contents

Unit	Lesson	Pages
1	Number bonds of 5	2–3
2	Number bonds of 10	4–5
3	Doubles to 10	6–7
4	Add 1	8–9
5	Add 2	10–11
6	Take away 1	12–13
7	Take away 2	14–15
8	Add 10	16–17
9	Take away 10	18–19
10	Zero	20–21
11	Doubles to 20	22–23
12	Add 5	24–25
13	Take away 5	26–27
14	Near doubles	28–29
15	Add 6	30–31
16	Take away 6	32–33
17	Add 4	34–35
18	Take away 4	36–37
19	Add 9	38–39
20	Take away 9	40–41
21	Add 8	42–43
22	Take away 8	44–45
23	Add 7	46–47
24	Take away 7	48–49
25	Add 3	50–51
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	Family Card Games	70

2 Number bonds of 10

MONDAY

1 Use your ▦ and ●●●●.

(a) 3 ● and ☐ ● = 10

(b) 10 ● and ☐ ● = 10

(c) 1 ● and ☐ ● = 10

(d) 0 ● and ☐ ● = 10

(e) 2 ● and ☐ ● = 10

(f) 4 ● and ☐ ● = 10

(g) 7 ● and ☐ ● = 10

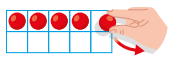
(h) 8 ● and ☐ ● = 10

(i) 5 ● and ☐ ● = 10

(j) 9 ● and ☐ ● = 10

(k) 6 ● and ☐ ● = 10

2 Put 10 ● on your ▦.
Take away. How many are left?

(a) Take away 5 ☐ 

(b) Take away 2 ☐

(c) Take away 10 ☐

(d) Take away 4 ☐

(e) Take away 3 ☐

(f) Take away 1 ☐

(g) Take away 8 ☐

(h) Take away 6 ☐

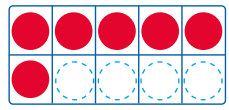
(i) Take away 9 ☐

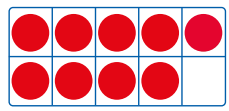
(j) Take away 7 ☐

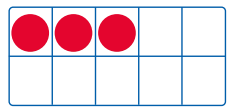
(k) Take away 0 ☐

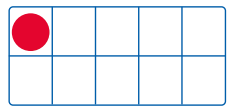
TUESDAY

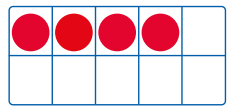
1 How many counters? How many more will make 10?

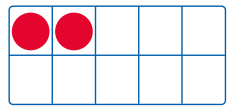
(a)  6 + ☐ = 10

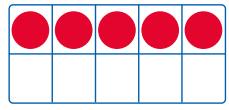
(b)  ☐ + ☐ = 10

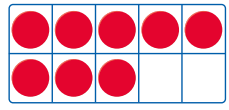
(c)  ☐ + ☐ = 10

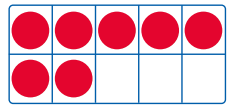
(d)  ☐ + ☐ = 10

(e)  ☐ + ☐ = 10

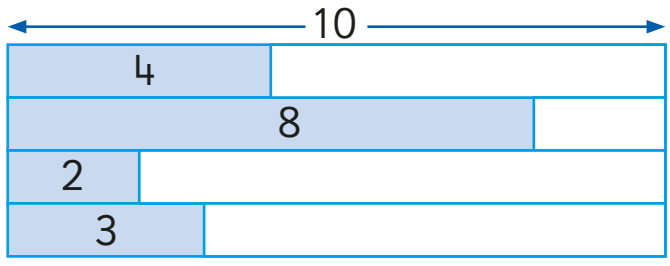
(f)  ☐ + ☐ = 10

(g)  ☐ + ☐ = 10

(h)  ☐ + ☐ = 10

(i)  ☐ + ☐ = 10

2 How many more will make 10?



3 Challenge

(a) 4 ● and 1 ● and ☐ ● = 10

(b) 5 ● and 2 ● and ☐ ● = 10

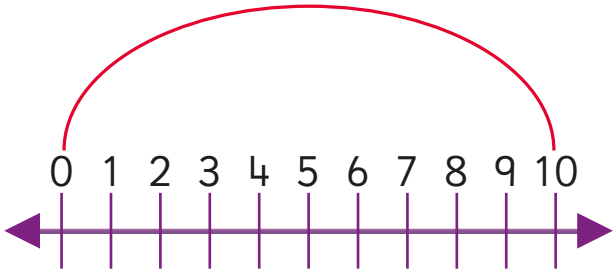
(c) 3 ● and ☐ ● and 6 ● = 10

(d) ☐ ● and 2 ● and 4 ● = 10

Thinking Strategy The various ways to partition 10 (benchmark number).

WEDNESDAY

1 Join the numbers that make 10. Write some matching number sentences.



(a) ☐ + ☐ = 10

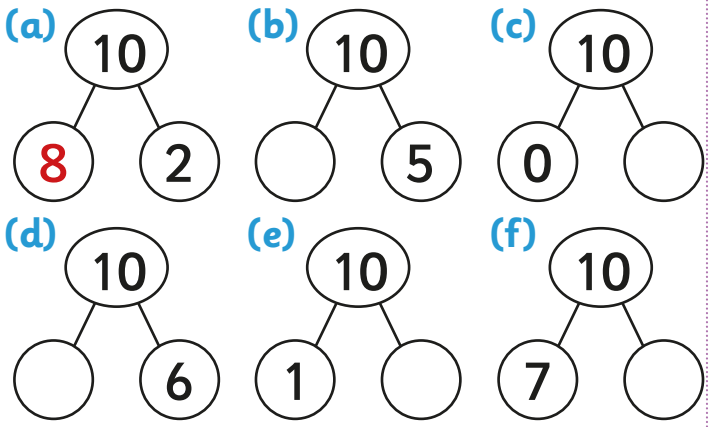
(b) ☐ + ☐ = 10

(c) ☐ + ☐ = 10

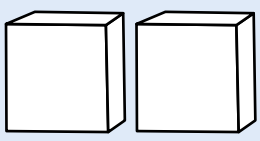
(d) ☐ + ☐ = 10

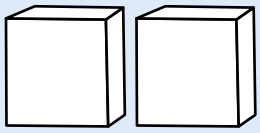
(e) ☐ + ☐ = 10

2 Complete the number bonds to make 10.



3 **Challenge** Draw dots on the dice to make 10. Draw two ways.

(a) 

(b) 

THURSDAY

1 Complete the number sentences.

(a) 5 + ☐ = 10

(b) 9 + ☐ = 10

(c) 6 + ☐ = 10

(d) 8 + ☐ = 10

(e) 1 + ☐ = 10

(f) ☐ + 10 = 10

(g) ☐ + 4 = 10

(h) ☐ + 0 = 10

(i) ☐ + 3 = 10

2 (a) 10 take away 6 = ☐

(b) 10 take away 7 = ☐

(c) 10 take away 2 = ☐

(d) 10 take away 4 = ☐

(e) 10 take away 9 = ☐

(f) 10 take away 5 = ☐

(g) 10 take away 10 = ☐

(h) 10 take away 1 = ☐

(i) 10 take away 8 = ☐

(j) 10 take away 3 = ☐

3 **Challenge**

(a) 3 + 3 + ☐ = 10

(b) 2 + ☐ + 5 = 10

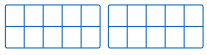
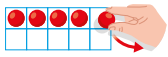
(c) ☐ + 1 + 4 = 10

(d) ☐ take away 4 = 6

Dear Family Play 'Make 10' (see page 70).

9 Take away 10

MONDAY

1 Use your  and .
Take away. 

(a) 11 ● take away 10 = ☐

(b) 18 ● take away 10 = ☐

(c) 13 ● take away 10 = ☐

(d) 19 ● take away 10 = ☐

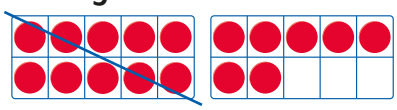
(e) 12 ● take away 10 = ☐

(f) 10 ● take away 10 = ☐

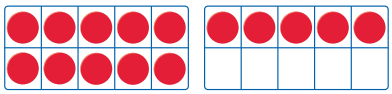
(g) 20 ● take away 10 = ☐

(h) 16 ● take away 10 = ☐

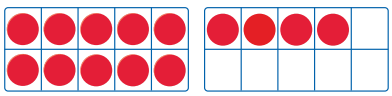
2 How many counters? Take away 10.
How many are left?

(a) 

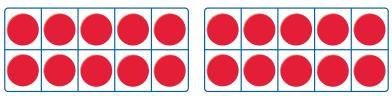
17 – 10 = ☐

(b) 

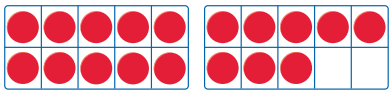
☐ – ☐ = ☐

(c) 

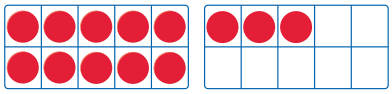
☐ – ☐ = ☐

(d) 

☐ – ☐ = ☐

(e) 

☐ – ☐ = ☐

(f) 

☐ – ☐ = ☐

TUESDAY

1 How many dots? Take away 10.
How many are left?

(a) 12 – 10 = ☐

(b) ☐ – ☐ = ☐

(c) ☐ – ☐ = ☐

(d) ☐ – ☐ = ☐

(e) ☐ – ☐ = ☐

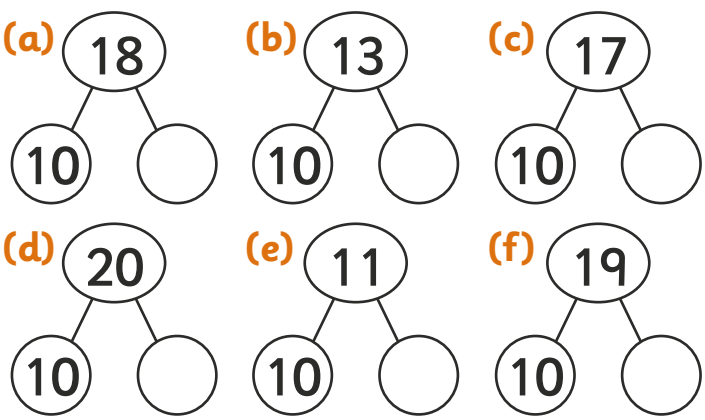
(f) ☐ – ☐ = ☐

(g) ☐ – ☐ = ☐

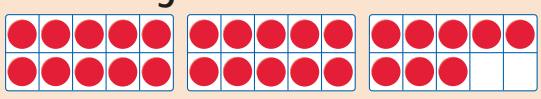
(h) ☐ – ☐ = ☐

(i) ☐ – ☐ = ☐

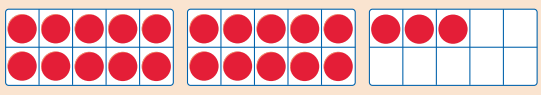
2 Complete the number bonds.



3 **Challenge** Take away 10. Write the matching number sentences.

(a) 

28 – 10 = ☐

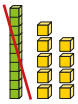
(b) 

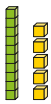
☐ – 10 = ☐

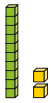
Thinking Strategy Take away a ten, e.g. 16 – 10 → (1 ten + 6 units) – 1 ten = 6.

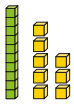
WEDNESDAY

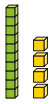
1 Take away 10. Write the matching number sentences.

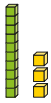
(a)  19 – 10 = ☐

(b)  ☐ – 10 = ☐

(c)  ☐ – ☐ = ☐

(d)  ☐ – ☐ = ☐

(e)  ☐ – ☐ = ☐

(f)  ☐ – ☐ = ☐

2 (a) 20 take away 10 = ☐

(b) 15 take away 10 = ☐

(c) 18 take away 10 = ☐

(d) 14 take away 10 = ☐

(e) 11 take away 10 = ☐

(f) 13 subtract 10 = ☐

(g) 10 subtract 10 = ☐

(h) 16 subtract 10 = ☐

(i) 17 subtract 10 = ☐

3 Challenge

(a) 21 subtract 10 = ☐

(b) 24 take away 10 = ☐

(c) 27 subtract 10 = ☐

(d) 33 take away 10 = ☐

THURSDAY

1 (a) 19 – 10 = ☐

(b) 11 – 10 = ☐

(c) 17 – 10 = ☐

(d) 13 – 10 = ☐

(e) 15 – 10 = ☐

(f) 20 – 10 = ☐

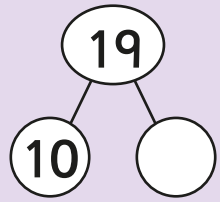
(g) 10 – 10 = ☐

(h) 18 – 10 = ☐

(i) 16 – 10 = ☐

(j) 14 – 10 = ☐

Think:
19 take away 10 equals what number?



2 (a) 18 – ☐ = 10

(b) 10 – ☐ = 10

(c) 12 – ☐ = 10

(d) 15 – ☐ = 10

(e) 16 – ☐ = 10

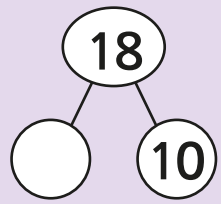
(f) 14 – ☐ = 10

(g) 17 – ☐ = 10

(h) 11 – ☐ = 10

(i) 19 – ☐ = 10

Think:
18 take away what number equals 10?



Or 10 plus what number equals 18?

3 Challenge

(a) 25 – 10 = ☐

(b) 28 – 10 = ☐

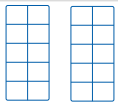
(c) 23 – ☐ = 10

(d) 39 – ☐ = 10

Dear Family Play 'Take Away Snap with 10' (see page 70).

11 Doubles to 20

MONDAY

1 Use your  and to make doubles.

(a) 8 and 8 = ☐

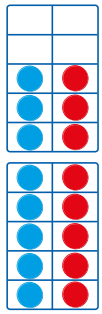
(b) 5 and 5 = ☐

(c) 9 and 9 = ☐

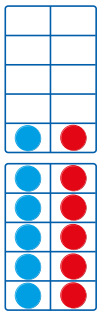
(d) 7 and 7 = ☐

(e) 6 and 6 = ☐

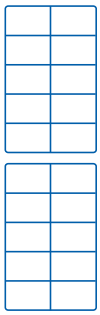
(f) 10 and 10 = ☐



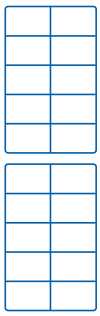
2 Draw counters on the ten frames to show these doubles. Solve.

(a) 

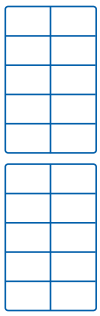
6 + 6 = ☐

(b) 

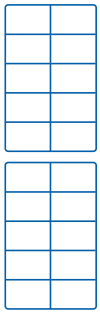
8 + 8 = ☐

(c) 

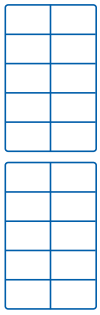
7 + 7 = ☐

(d) 

10 + 10 = ☐

(e) 

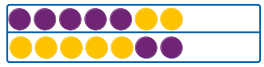
9 + 9 = ☐

(f) 

4 + 4 = ☐

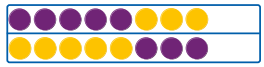
TUESDAY

1 How many dots in each row? Complete the number sentences.

(a)  7 + 7 = ☐

(b) ☐ + ☐ = ☐

(c) ☐ + ☐ = ☐

(d)  ☐ + ☐ = ☐

(e) ☐ + ☐ = ☐

(f) ☐ + ☐ = ☐

2

(a) Double 9 = ☐

(b) Double 6 = ☐

(c) Double 10 = ☐

(d) Double 8 = ☐

(e) Double 5 = ☐

(f) Double 7 = ☐

(g) Double 4 = ☐

(h) Double 1 = ☐

(i) Double 3 = ☐

(j) Double 2 = ☐

3 Challenge

(a) Double ☐ = 16

(b) Double ☐ = 12

(c) Double ☐ = 18

(d) Double ☐ = 14

(e) Double ☐ = 24

Thinking Strategy Identify doubles from their shape on a ten frame.

WEDNESDAY

1 Complete the number bonds.

(a) 7 7

(b) 6 6

(c) 10 10

(d) 8 8

(e) 9 9

(f) 5 5

(g) 2 2

(h) 4 4

(i) 3 3

2

(a) 9 add 9 = ☐

(b) 6 add 6 = ☐

(c) 4 add 4 = ☐

(d) 10 add 10 = ☐

(e) 7 add 7 = ☐

(f) 8 add 8 = ☐

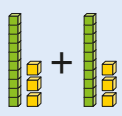
(g) 1 add 1 = ☐

(h) 5 add 5 = ☐

(i) 0 add 0 = ☐

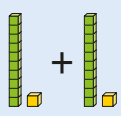
3 Challenge

(a)



+ 13 = ☐

(b)



+ ☐ + ☐ = ☐

The answers to doubles are all _____ numbers.

THURSDAY

1

(a) 8 plus 8 = ☐

(b) 6 plus 6 = ☐

(c) 4 plus 4 = ☐

(d) 5 plus 5 = ☐

(e) 9 plus 9 = ☐

(f) 3 plus 3 = ☐

(g) 10 plus 10 = ☐

(h) 0 plus 0 = ☐

(i) 7 plus 7 = ☐

Think: 8 and 8 equals what number?

8 8

2

(a) 1 + 1 = ☐

(b) 10 + 10 = ☐

(c) 3 + 3 = ☐

(d) 8 + 8 = ☐

(e) 2 + 2 = ☐

(f) 0 + 0 = ☐

(g) 9 + 9 = ☐

(h) 5 + 5 = ☐

(i) 7 + 7 = ☐

3 Challenge Complete these number sentences using doubles.

(a) ☐ + ☐ = 12

(b) ☐ + ☐ = 18

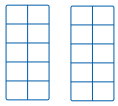
(c) ☐ + ☐ = 14

(d) ☐ + ☐ = 24

Dear Family Play 'Doubles Snap' (see page 70).

14 Near doubles

MONDAY

1 Use your  and to make near doubles.

(a) 6 and 7 = ☐

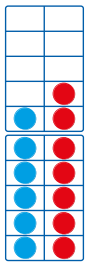
(b) 4 and 5 = ☐

(c) 8 and 9 = ☐

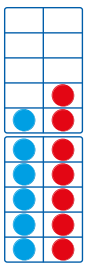
(d) 9 and 10 = ☐

(e) 7 and 8 = ☐

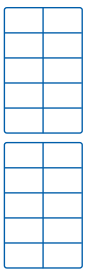
(f) 5 and 6 = ☐



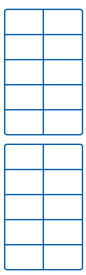
2 Draw dots on the ten frames to match each number sentence.

(a) 

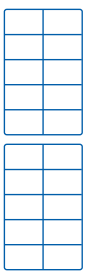
6 + 7 = ☐

(b) 

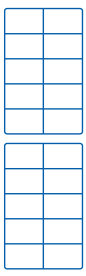
9 + 10 = ☐

(c) 

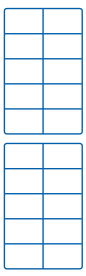
4 + 5 = ☐

(d) 

8 + 9 = ☐

(e) 

7 + 8 = ☐

(f) 

5 + 6 = ☐

3 Challenge

(a) 6 + 7 → 6 + 6 + 1 = ☐

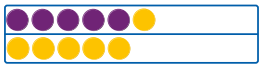
(b) 8 + 9 → 8 + ☐ + 1 = ☐

(c) 7 + 8 → ☐ + 7 + 1 = ☐

TUESDAY

1 How many dots in each row? Complete the number sentences.

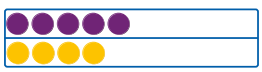
(a) 7 + 8 = ☐

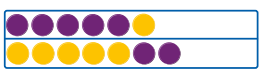
(b)  ☐ + ☐ = ☐

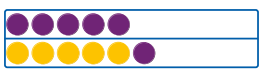
(c) ☐ + ☐ = ☐

(d) ☐ + ☐ = ☐

(e) ☐ + ☐ = ☐

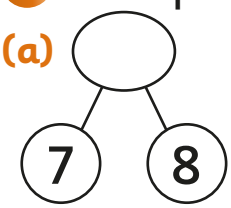
(f)  ☐ + ☐ = ☐

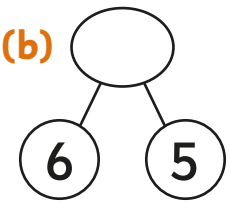
(g)  ☐ + ☐ = ☐

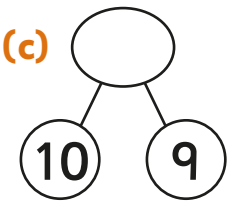
(h)  ☐ + ☐ = ☐

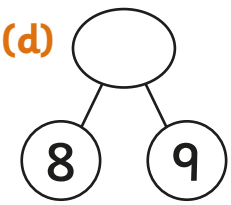
(i) ☐ + ☐ = ☐

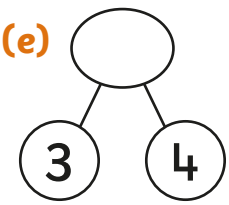
2 Complete the number bonds.

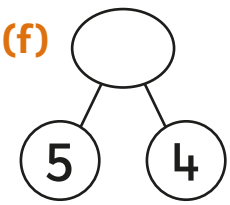
(a) 

(b) 

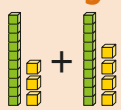
(c) 

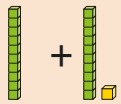
(d) 

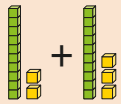
(e) 

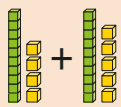
(f) 

3 Challenge

(a)  13 + 14 = ☐

(b)  ☐ + ☐ = ☐

(c)  ☐ + ☐ = ☐

(d)  ☐ + ☐ = ☐

The answers to near doubles are all _____ numbers.

Thinking Strategy Solve near doubles using doubles (one more or one less), e.g. 6 + 6 = 12, so 6 + 7 = ...

WEDNESDAY

1 **(a)** (Double 9) plus 1 = ☐

(b) (Double 2) plus 1 = ☐

(c) (Double 6) plus 1 = ☐

(d) (Double 5) plus 1 = ☐

(e) (Double 7) plus 1 = ☐

(f) (Double 3) plus 1 = ☐

(g) (Double 8) plus 1 = ☐

(h) (Double 4) plus 1 = ☐

(i) (Double 1) plus 1 = ☐

(j) (Double 10) plus 1 = ☐

2 **(a)** (Double 8) take away 1 = ☐

(b) (Double 5) take away 1 = ☐

(c) (Double 4) take away 1 = ☐

(d) (Double 10) take away 1 = ☐

(e) (Double 6) take away 1 = ☐

(f) (Double 9) take away 1 = ☐

(g) (Double 2) take away 1 = ☐

(h) (Double 7) take away 1 = ☐

(i) (Double 3) take away 1 = ☐

3 **Challenge**

(a) (Double ☐) plus 1 = 15

(b) (Double ☐) plus 1 = 13

(c) (Double ☐) take away 1 = 17

(d) (Double ☐) take away 1 = 19

THURSDAY

1 **(a)** 6 add 7 = ☐

(b) 9 add 10 = ☐

(c) 5 add 4 = ☐

(d) 3 plus 4 = ☐

(e) 6 plus 5 = ☐

(f) 0 plus 1 = ☐

(g) 7 plus 8 = ☐

(h) 2 plus 3 = ☐

(i) 1 plus 2 = ☐

(j) 8 plus 9 = ☐

Think: what is 6 + 6? So what is 6 + 7?

2 **(a)** 7 + 6 = ☐

(b) 3 + 2 = ☐

(c) 6 + 5 = ☐

(d) 8 + 9 = ☐

(e) 4 + 5 = ☐

(f) 8 + 7 = ☐

(g) 2 + 1 = ☐

(h) 10 + 9 = ☐

(i) 3 + 4 = ☐

Think: what is 7 + 7? So what is 7 + 6?

3 **Challenge** Complete these number sentences using near doubles.

(a) ☐ + ☐ = 19

(b) ☐ + ☐ = 15

(c) ☐ + ☐ = 21

(d) ☐ + ☐ = 17

Dear Family Play 'Near Doubles Snap' (see page 70).

19 Add 9

MONDAY

1 Use your ▦ and ● to add these numbers to 9.

(a) 9 ● and 7 ● = ☐

(b) 9 ● and 3 ● = ☐

(c) 9 ● and 9 ● = ☐

(d) 9 ● and 8 ● = ☐

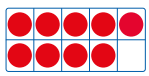
(e) 9 ● and 2 ● = ☐

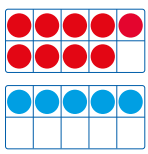
(f) 9 ● and 1 ● = ☐

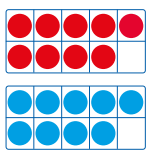
(g) 9 ● and 10 ● = ☐

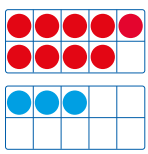
(h) 9 ● and 4 ● = ☐

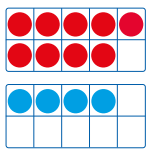
2 How many counters in each ▦? Complete the number sentences.

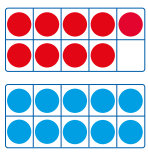
(a)  9 + 6 = ☐

(b)  ☐ + ☐ = ☐

(c)  ☐ + ☐ = ☐

(d)  ☐ + ☐ = ☐

(e)  ☐ + ☐ = ☐

(f)  ☐ + ☐ = ☐

3 Challenge

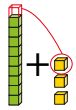
(a) 9 + 7 + 1 = ☐

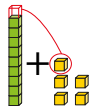
(b) 8 + 1 + 9 = ☐

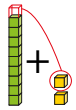
(c) 6 + 9 + 1 = ☐

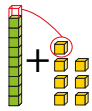
TUESDAY

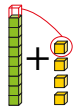
1 Write the number sentences.
Move a cube to make a ten.

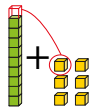
(a)  9 + 3 = ☐

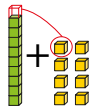
(b)  ☐ + 5 = ☐

(c)  ☐ + ☐ = ☐

(d)  ☐ + ☐ = ☐

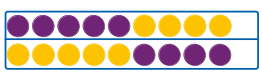
(e)  ☐ + ☐ = ☐

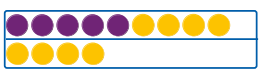
(f)  ☐ + ☐ = ☐

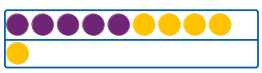
(g)  ☐ + ☐ = ☐

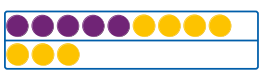
2 How many dots in each row? Complete the number sentences.
Make a ten if possible.

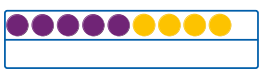
(a) 9 + 2 = ☐

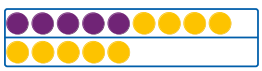
(b)  ☐ + ☐ = ☐

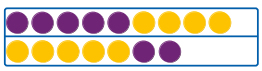
(c)  ☐ + ☐ = ☐

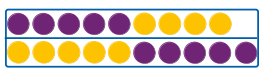
(d)  ☐ + ☐ = ☐

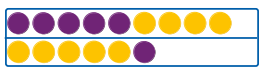
(e)  ☐ + ☐ = ☐

(f)  ☐ + ☐ = ☐

(g)  ☐ + ☐ = ☐

(h)  ☐ + ☐ = ☐

(i)  ☐ + ☐ = ☐

(j)  ☐ + ☐ = ☐

Thinking Strategy Make a ten by moving 1 unit from the other number, e.g. 9 + 8 → 10 + 7 = 17.

WEDNESDAY

1 Make a ten. Add.

(a) 1
9 + 6
10 + 5 = ☐

(b) 1
9 + 8
10 + ☐ = ☐

(c) 1
9 + 7
☐ + ☐ = ☐

(d) 1
9 + 4
☐ + ☐ = ☐

(e) 1
9 + 2
☐ + ☐ = ☐

(f) 1
9 + 3
☐ + ☐ = ☐

2 **(a)** 9 + 7 = 10 + ☐ = ☐
(b) 9 + 5 = 10 + ☐ = ☐
(c) 9 + 8 = 10 + ☐ = ☐
(d) 9 + 6 = 10 + ☐ = ☐
(e) 9 + 3 = 10 + ☐ = ☐
(f) 9 + 4 = 10 + ☐ = ☐
(g) 9 + 2 = 10 + ☐ = ☐

3 Challenge

(a) 9 + 13 = 10 + ☐ = ☐
(b) 9 + 16 = 10 + ☐ = ☐
(c) 9 + 21 = 10 + ☐ = ☐
(d) 19 + 17 = 20 + ☐ = ☐

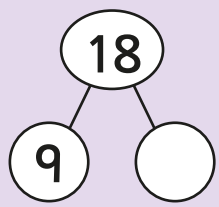
THURSDAY

1 **(a)** 9 + 5 = ☐
(b) 4 + 9 = ☐
(c) 9 + 7 = ☐
(d) 9 + 8 = ☐
(e) 2 + 9 = ☐
(f) 9 + 6 = ☐
(g) 9 + 1 = ☐
(h) 9 + 9 = ☐
(i) 0 + 9 = ☐
(j) 3 + 9 = ☐

Think:
9 + 5 = 10 + …

2 **(a)** 9 + ☐ = 18
(b) ☐ + 9 = 16
(c) 9 + ☐ = 11
(d) ☐ + 9 = 13
(e) 9 + ☐ = 15
(f) ☐ + 9 = 9
(g) 9 + ☐ = 12
(h) ☐ + 9 = 10
(i) 9 + ☐ = 19

Think: 9 and what number equals 18?



3 Challenge

(a) 9 + ☐ = 20
(b) ☐ + 9 = 22
(c) 9 + ☐ = 24
(d) ☐ + 9 = 23

Dear Family Play 'Add Snap with 9' (see page 70).

27 Number bonds of 20

MONDAY

1 Use your ten frames and counters.

(a) 10 and ☐ = 20

(b) 8 and ☐ = 20

(c) 9 and ☐ = 20

(d) 1 and ☐ = 20

(e) 5 and ☐ = 20

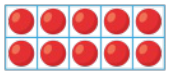
(f) 14 and ☐ = 20

(g) 17 and ☐ = 20

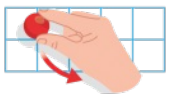
(h) 13 and ☐ = 20

2 Put 20 counters on your ten frames. Take away. How many are left?

(a) Take away 15 ☐



(b) Take away 3 ☐



(c) Take away 0 ☐

(d) Take away 4 ☐

(e) Take away 11 ☐

(f) Take away 18 ☐

(g) Take away 19 ☐

(h) Take away 7 ☐

(i) Take away 9 ☐

3 **Challenge**

(a) 4 and 8 and ☐ = 20

(b) 5 and 9 and ☐ = 20

(c) 3 and ☐ and 8 = 20

(d) ☐ and 9 and 4 = 20

TUESDAY

1 How many dots? How many more will make 20?

(a) 12 + ☐ = 20

(b) ☐ + ☐ = 20

(c) ☐ + ☐ = 20

(d) ☐ + ☐ = 20

(e) ☐ + ☐ = 20

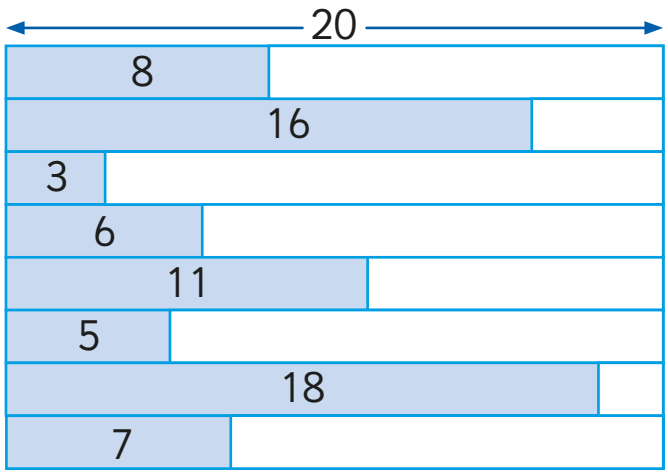
(f) ☐ + ☐ = 20

(g) ☐ + ☐ = 20

(h) ☐ + ☐ = 20

(i) ☐ + ☐ = 20

2 How many more will make 20?

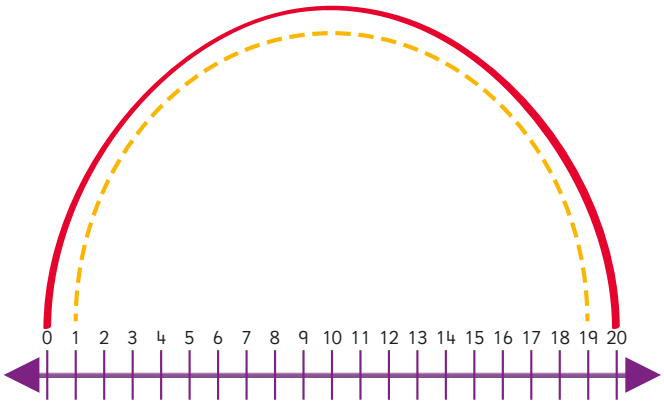


3 **Challenge** I spent €20 altogether. What did each cost?

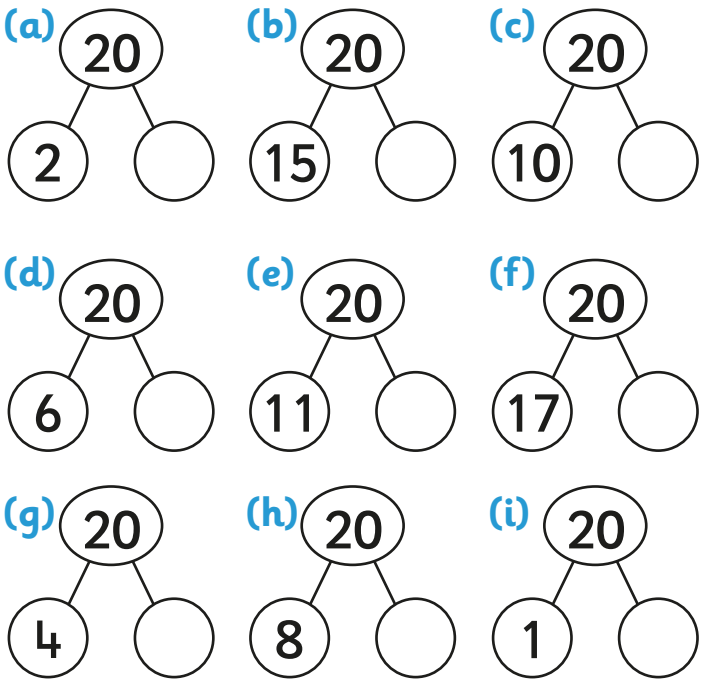
Thinking Strategy The various ways to partition 20 (benchmark number).

WEDNESDAY

1 Join the numbers that make 20.



2 Complete the number bonds to make 20.



3 Challenge

(a) ☀ + ★ + ☾ = 20

(b) ☀ + ★ = 12

(c) ★ + ☾ = 15

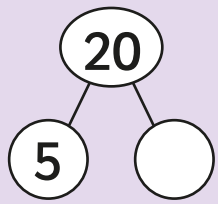
☾ = ☐ ★ = ☐ ☀ = ☐

THURSDAY

1 Complete the number sentences.

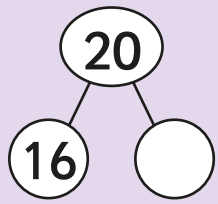
(a) 5 + ☐ = 20
(b) 19 + ☐ = 20
(c) 6 + ☐ = 20
(d) 18 + ☐ = 20
(e) 11 + ☐ = 20
(f) 7 + ☐ = 20
(g) 12 + ☐ = 20
(h) ☐ + 10 = 20
(i) ☐ + 4 = 20
(j) ☐ + 0 = 20

Think: what number must be added to 5 to make 20?



2 (a) 20 – 16 = ☐
(b) 20 – 17 = ☐
(c) 20 – 2 = ☐
(d) 20 – 14 = ☐
(e) 20 – 9 = ☐
(f) 20 – 15 = ☐
(g) 20 – 20 = ☐
(h) 20 – 8 = ☐
(i) 20 – 13 = ☐
(j) 20 – 10 = ☐

Think: 20 take away 16 equals what number?



Or what number must be added to 16 to make 20?

3 Challenge

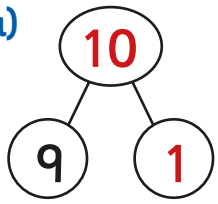
(a) 4 + 9 + ☐ = 20
(b) 20 – ☐ = 6
(c) ☐ + 8 + 3 = 20

Dear Family Play 'Make 20' (see page 70).

4 Adding and subtracting with 9

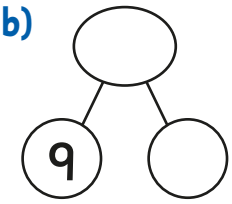
Complete the number bonds to show number facts with 9. Write the matching number sentences. The first one is done for you. You can write the number sentences for parts (f) to (j) in your copy.

(a)



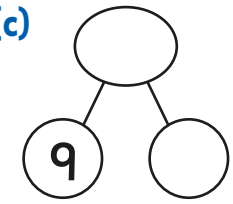
9 + 1 = 10
1 + 9 = 10
10 − 9 = 1
10 − 1 = 9

(b)



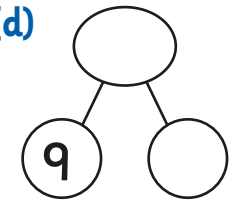
_ + _ = _
_ + _ = _
_ − _ = _
_ − _ = _

(c)



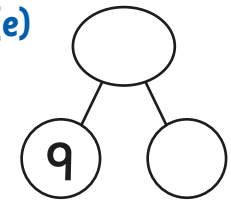
_ + _ = _
_ + _ = _
_ − _ = _
_ − _ = _

(d)



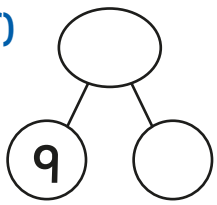
_ + _ = _
_ + _ = _
_ − _ = _
_ − _ = _

(e)

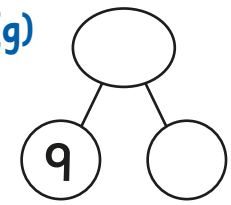


_ + _ = _
_ + _ = _
_ − _ = _
_ − _ = _

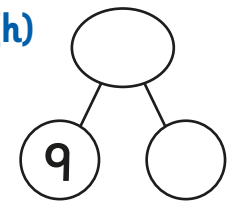
(f)



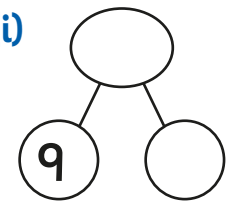
(g)



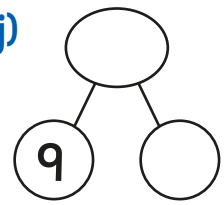
(h)



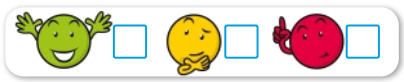
(i)



(j)



You are now ready to do Assessment C (page 67).

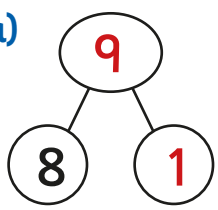


Revision D (Units 21–26)

1 Adding and subtracting with 8

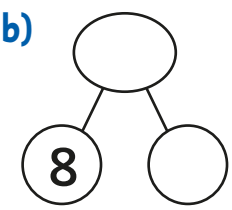
Complete the number bonds to show number facts with 8. Write the matching number sentences. The first one is done for you. You can write the number sentences for parts (f) to (j) in your copy.

(a)



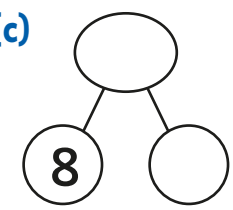
8 + 1 = 9
1 + 8 = 9
9 − 8 = 1
9 − 1 = 8

(b)



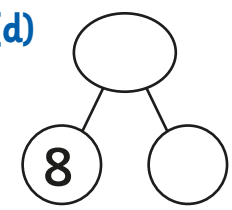
_ + _ = _
_ + _ = _
_ − _ = _
_ − _ = _

(c)



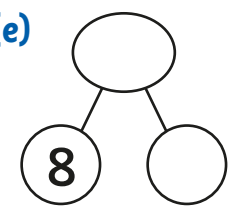
_ + _ = _
_ + _ = _
_ − _ = _
_ − _ = _

(d)



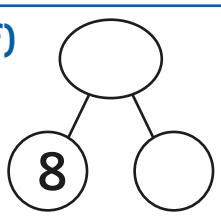
_ + _ = _
_ + _ = _
_ − _ = _
_ − _ = _

(e)

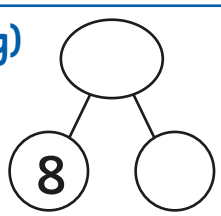


_ + _ = _
_ + _ = _
_ − _ = _
_ − _ = _

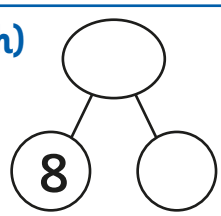
(f)



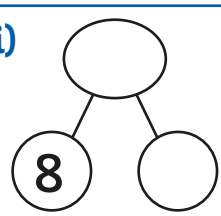
(g)



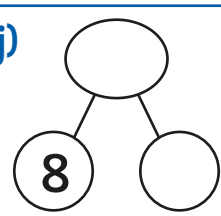
(h)



(i)



(j)



Assessments

Assessment A (Units 1–7)

40

1

(a) 3 + 3 = ☐
(b) 0 + 10 = ☐
(c) 4 + 4 = ☐
(d) 2 + 3 = ☐
(e) 7 + 3 = ☐
(f) 1 + 1 = ☐
(g) 2 + 8 = ☐
(h) 2 + 7 = ☐
(i) 0 + 5 = ☐
(j) 4 + 6 = ☐

2

(a) 4 + ☐ = 5
(b) 10 + ☐ = 12
(c) 2 + ☐ = 11
(d) 2 + ☐ = 4
(e) 1 + ☐ = 1
(f) 2 + ☐ = 3
(g) 2 + ☐ = 6
(h) 9 + ☐ = 10
(i) 6 + ☐ = 8
(j) 5 + ☐ = 7

3

(a) 5 – 0 = ☐
(b) 6 – 3 = ☐
(c) 9 – 2 = ☐
(d) 10 – 6 = ☐
(e) 2 – 1 = ☐
(f) 8 – 4 = ☐
(g) 10 – 0 = ☐
(h) 5 – 2 = ☐
(i) 12 – 2 = ☐
(j) 10 – 7 = ☐

4

(a) 9 – 2 = ☐
(b) 3 + 1 = ☐
(c) 10 – 5 = ☐
(d) 11 – 1 = ☐
(e) 9 – ☐ = 8
(f) 5 + ☐ = 6
(g) 1 + ☐ = 7
(h) 5 + 5 = ☐
(i) 2 – ☐ = 0
(j) 10 + ☐ = 11

Assessment B (Units 8–13)

40

1

(a) 5 + 5 = ☐
(b) 10 + 1 = ☐
(c) 0 + 9 = ☐
(d) 10 + 3 = ☐
(e) 6 + 0 = ☐
(f) 10 + 9 = ☐
(g) 0 + 1 = ☐
(h) 6 + 6 = ☐
(i) 0 + 7 = ☐
(j) 4 + 4 = ☐

2

(a) 5 + ☐ = 9
(b) 8 + ☐ = 16
(c) 2 + ☐ = 12
(d) 3 + ☐ = 3
(e) 7 + ☐ = 12
(f) 9 + ☐ = 18
(g) 0 + ☐ = 10
(h) 2 + ☐ = 4
(i) 5 + ☐ = 6
(j) 10 + ☐ = 20

3

(a) 4 – 0 = ☐
(b) 7 – 5 = ☐
(c) 11 – 5 = ☐
(d) 18 – 10 = ☐
(e) 6 – 3 = ☐
(f) 17 – 10 = ☐
(g) 16 – 8 = ☐
(h) 5 – 0 = ☐
(i) 14 – 10 = ☐
(j) 13 – 5 = ☐

4

(a) 0 + 0 = ☐
(b) 16 – 10 = ☐
(c) 0 + 2 = ☐
(d) 14 – 7 = ☐
(e) 8 + 0 = ☐
(f) 9 – ☐ = 5
(g) 5 + ☐ = 15
(h) 8 – ☐ = 3
(i) 14 – ☐ = 5
(j) 1 + ☐ = 4

Assessment G (All units)

40

1

(a) 8 + 3 = ☐
(b) 6 + 4 = ☐
(c) 4 + 3 = ☐
(d) 7 + 8 = ☐
(e) 3 + 6 = ☐
(f) 9 + 5 = ☐
(g) 1 + 10 = ☐
(h) 9 + 8 = ☐
(i) 2 + 2 = ☐
(j) 7 + 7 = ☐

2

(a) 14 + ☐ = 20
(b) 5 + ☐ = 11
(c) 10 + ☐ = 18
(d) 2 + ☐ = 4
(e) 2 + ☐ = 10
(f) 6 + ☐ = 12
(g) 1 + ☐ = 7
(h) 2 + ☐ = 11
(i) 2 + ☐ = 3
(j) 5 + ☐ = 20

3

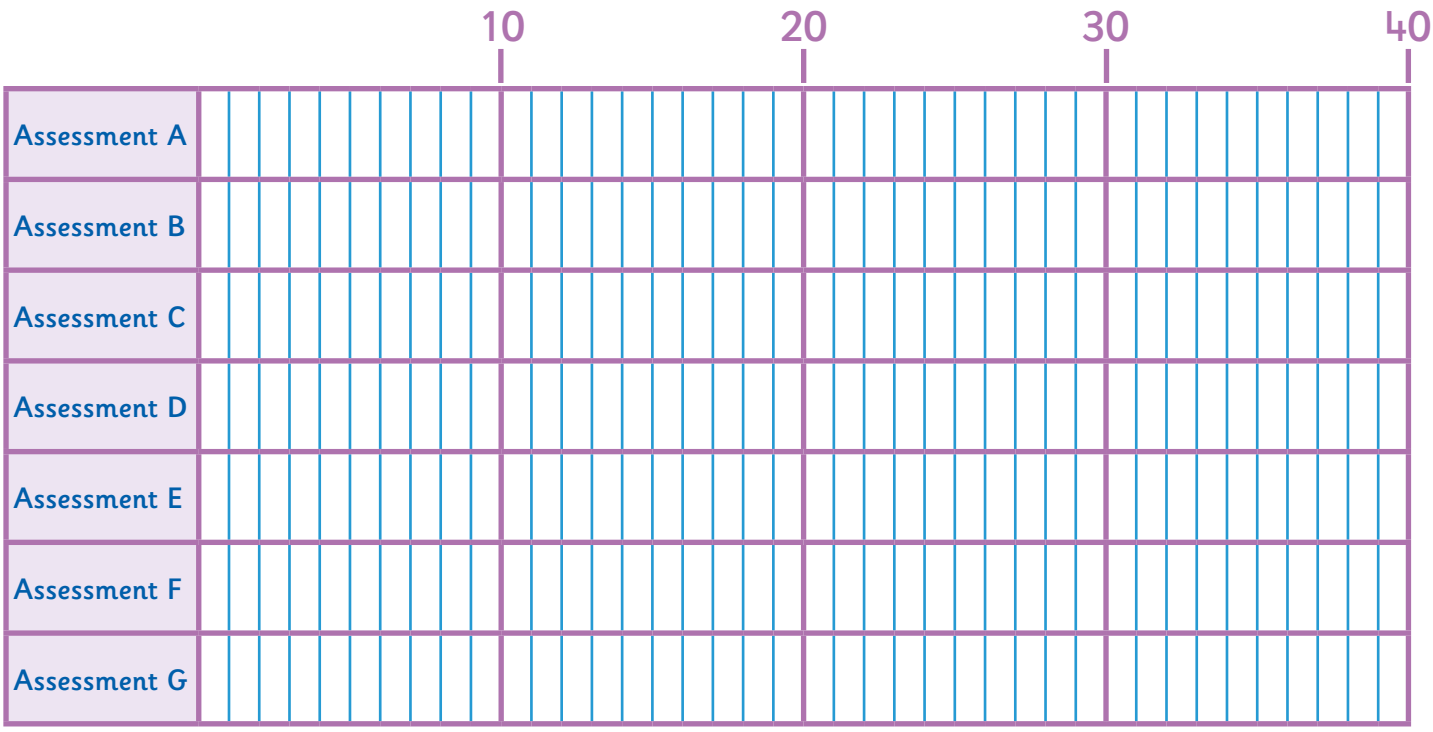
(a) 8 – 0 = ☐
(b) 20 – 3 = ☐
(c) 12 – 9 = ☐
(d) 20 – 0 = ☐
(e) 8 – 2 = ☐
(f) 4 – 0 = ☐
(g) 20 – 10 = ☐
(h) 2 – 2 = ☐
(i) 10 – 5 = ☐
(j) 12 – 8 = ☐

4

(a) 6 – 6 = ☐
(b) 1 + 1 = ☐
(c) 18 – 9 = ☐
(d) 5 + 4 = ☐
(e) 5 – 1 = ☐
(f) 9 – ☐ = 8
(g) 1 + ☐ = 10
(h) 5 + ☐ = 6
(i) 9 – ☐ = 0
(j) 10 + ☐ = 18

Personal Progress Chart

Colour the correct number of squares to show your score.



Family Card Games

Make 5

Use a pack of playing cards with only jacks (worth zero), aces, twos, threes, fours and fives remaining. Lay out the cards in four rows of six, face down. The players take turns to turn over two cards. If the two cards total 5, the player gets to keep the cards; if not, the cards are returned to their original position. Play continues until all the cards are gone. The winner is the player with the most cards.

Make 10

Use a pack of playing cards with the kings and queens removed. Jacks are worth zero. Lay out the cards in four rows of 11, face down. Play as per **Make 5**, but the two upturned cards must total 10.

Make 20

Play as per **Make 10**, but the players turn over three cards each time, and the cards must total 20. Play continues until all the cards are gone or until there are no cards remaining that make 20.

Doubles Snap

Use a pack of playing cards with the picture cards removed. The dealer turns over only the top card in the pack. The person who first calls out the double of that number wins the card. For example, if the upturned card is '6', the answer is 12.

Near Doubles Snap

Play as per **Doubles Snap**, but it is the person who first calls out the near double of the number who wins that card.

NB: you must decide in advance if the aim is to find the double of the number plus one or take away one.

For example, if the aim is to find the double of the number plus one and the upturned card is a '6', the answer is 13.

If the aim is to find the double of the number take away one, the answer is 11.

Halves Snap

Use a pack of playing cards with only even numbers remaining. Play as per **Doubles Snap**, but it is the person who first calls out the half value of the upturned card(s) who wins that card. In the first round, the dealer turns over one card; in the second round, the dealer turns over two cards to represent a two-digit number.

Add Snap with 1/2/3 . . .

To play **Add Snap with 1**, remove one of the '1' cards from the pack and leave it face up on the table. Place the rest of the pack face down on the table alongside the upturned 1. The dealer turns over the top card. The person who first calls out the total of 1 plus the upturned card wins the card. Jacks count as 11, queens count as 12 and kings count as 13. Play continues until all the cards are gone. The winner is the player with the most cards. If the game continues, the winner also becomes the dealer.

- You can play **Add Snap** using different values (e.g. **Add Snap with 2**, **3**, **4**, etc.) in a similar way.

Take Away Snap with 1/2/3 . . .

To play **Take Away Snap with 1**, the dealer places a pack of playing cards face down on the table and turns over the top card. The person who first calls out the answer to the number on the upturned card minus 1 wins the card. Jacks count as 11, queens count as 12 and kings count as 13.

- You can play **Take Away Snap** using different values (e.g. **Take Away Snap with 2**; **Take Away Snap with 3**, etc.) in a similar way: just remove all cards from the pack that are below the chosen value. For example, for **Take Away Snap with 3**, remove all aces and twos.

Add Snap: mixed bag

This is a good game to play to revise a number of Add facts. Use a pack of playing cards with the picture cards removed. The dealer turns over the top two cards in the pack in full view of the other players. The person who first calls out the sum/total of the two cards wins those cards. For example, if the upturned cards are '8' and '6', the answer is 14.

- You can play **Add Zero Snap** in a similar way, but include picture cards, which all count as zero.
- To play **Add Snap Advanced**, include the picture cards: jacks represent 11; queens represent 12 and kings represent 13.

Take Away Snap: mixed bag

This is a good game to play to revise a number of Take Away facts. Play as per **Add Snap: mixed bag**, but it is the person who first calls out the difference between the two cards who wins those cards. For example, if the upturned cards are '8' and '6', the answer is 2.

Number Facts 1

A New Approach to Tables

Number Facts **is a series of activity books designed to foster fluency in number facts (or 'tables') for primary school children. This attractive and engaging series features an innovative approach to basic number facts, teaching children to understand, not just do, maths.**

In contrast to traditional drill-and-practice workbooks, which just test whether the answer is known, ***Number Facts*** teaches children to **visualise numbers pictorially** and to use these images and **thinking strategies** to become more adept at manipulating numbers, thus also enhancing their **mental calculation** and **problem-solving skills**.

FEATURES OF *NUMBER FACTS 1* (1st Class)

- **Weekly** units with addition and subtraction activities for Monday to Thursday.
- Each unit has an underlying **thinking strategy**, which is provided in the footer of the first page in each unit.
- **Think boxes** reinforce the relevant thinking strategies.
- Most days include a **Challenge section** to extend the children.
- The **Self-assessment** feature allows children to assess their own learning at the end of every week.
- Separate **Revision** and **Assessment** sections are included for completion at regular intervals to consolidate learning.
- Children can record their assessment scores in their **Personal Progress Chart**.
- A selection of **Family Card Games** is included for parents and children to play at home to reinforce the number facts taught in each unit.

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