Mathematics

Reception, KS1 and KS2

5th and 7th July 2023

Reception

Lesson 1
Counting

Ask the people in your family to put their hands out in front of them. How many fingers are there altogether?

Reception Can you count the total number of fingers by counting in 2's and 5's?

Adding using objects

1. Get 2 bowls
2. Put 3 small objects in one bowl and 2 in the other
3. Count how many you have altogether!
4. Try again using different amounts of objects.

Reception: Can you write the number sentence?

Reception Lesson 2

Reception

Lesson 3

Sequencing

Can you discuss and draw pictures of things you do throughout the day in the correct order using the words 'morning', 'afternoon' and 'night' eg in the morning I get dressed etc

Reception Could you identify some o'clock times with things you do eg at 5 o'clock I eat my dinner etc

Reception Lesson 4

Taller and shorter

Choose one of your teddies or dolls.

Can you find 3 things **taller** and 3 things **shorter** than your toy?

Can you draw them?

Reception: Can you find something **heavier** and **lighter** than your toy?

Year 1

Let's Learn

1

Can you tell if it is morning, afternoon, evening or night from the clock?

This is the minute hand.

This is the hour hand.

The minute hand is pointing to 12.
The hour hand is pointing to 8.
The time is 8 o'clock.

2 What time does each clock show?

			
12 o'clock		2 o'clock	3 o'clock
			
4 o'clock	5 o'clock		7 o'clock
			
8 o'clock	9 o'clock	10 o'clock	

Year 1

Telling Time to the Hour

1 Match.

- 5 o'clock
- 11 o'clock
- 2 o'clock
- 12 o'clock

2 Write the time shown on each clock.

Example

1 o'clock

(a)

(b)

(c)

(d)

(e)

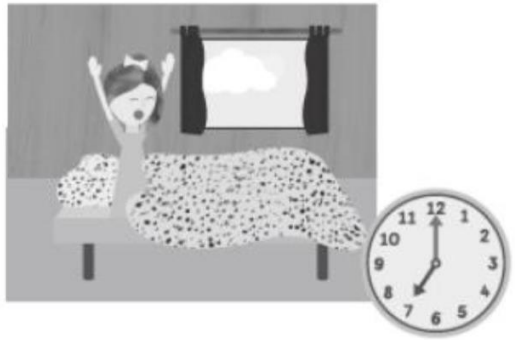
(f)

(g)

Year 1

3 The pictures show what Holly does during the holidays.
Write the time shown on each clock.

(a)



Holly wakes up at ☐ in the morning.

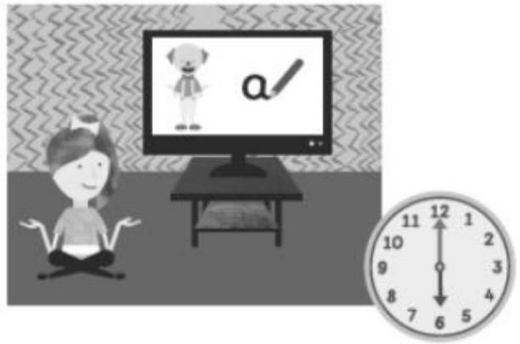
(b)

Holly goes for a walk in the park at ☐ in the morning.

(c)

Holly plays with her friends at ☐ in the afternoon.

(d)



Holly watches television at ☐ in the evening.

Year 1

Let's Learn

1

The minute hand is pointing to 12. Emma goes to bed at 9 o'clock.

2

The minute hand is pointing to 6. Ravi goes to bed at half past 9.

Time Page 88

3 What time does each clock show?

			
half past 12	half past 1	half past 2	half past 3
			
half past 4		half past 6	half past 7
			
	half past 9		half past 11

Year 1

Worksheet 2

Telling Time to the Half Hour

1 Match.

- half past 3
- half past 7
- half past 6
- half past 12

2 Write the time shown on each clock.

Example

half past 11

(a)

(b)

(c)

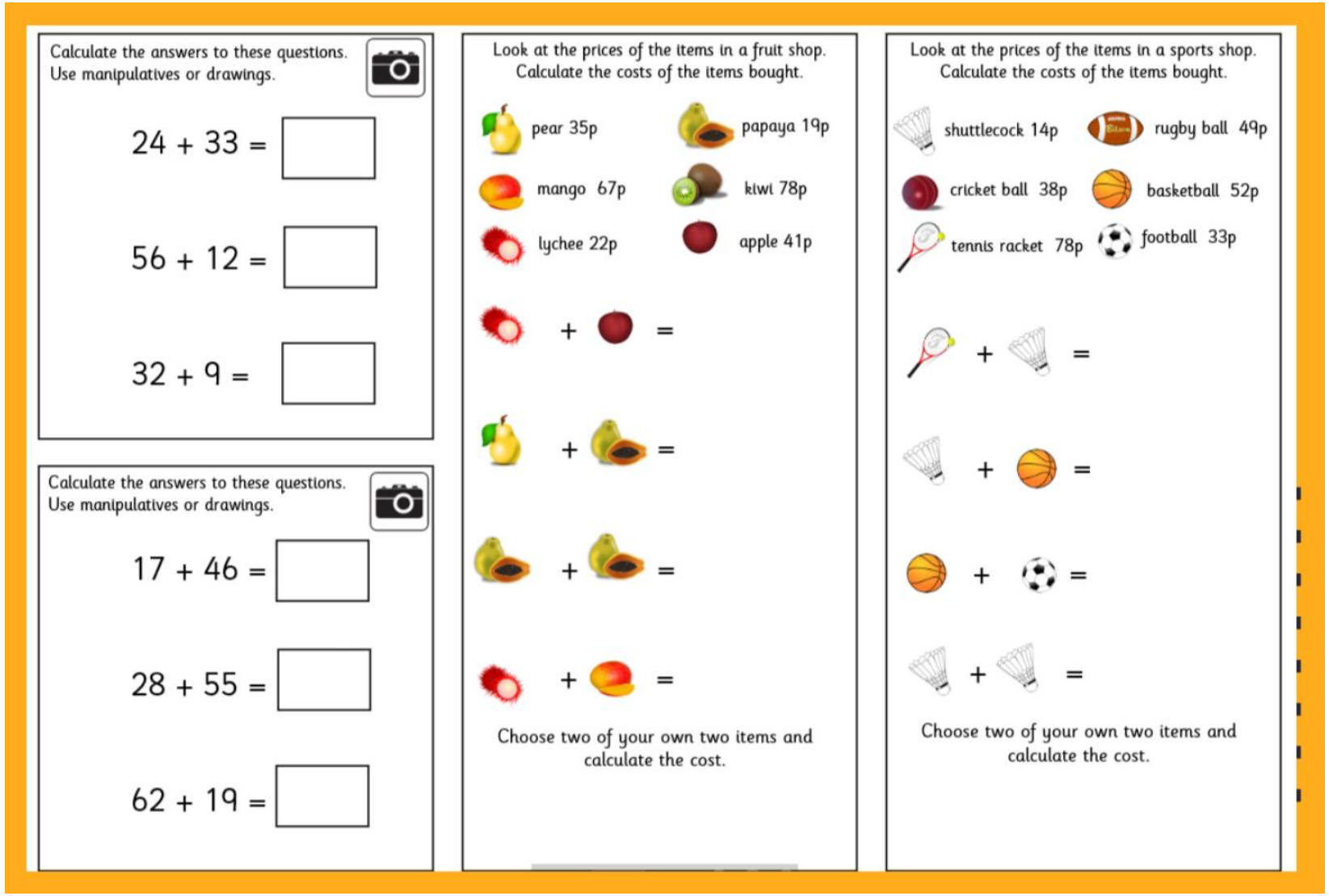
(d)

(e)

(f)

(g)

Year 2



Calculate the answers to these questions.
Use manipulatives or drawings.

24 + 33 =

56 + 12 =

32 + 9 =

Calculate the answers to these questions.
Use manipulatives or drawings.

17 + 46 =

28 + 55 =

62 + 19 =

Look at the prices of the items in a fruit shop.
Calculate the costs of the items bought.

pear 35p
papaya 19p
mango 67p
kiwi 78p
lychee 22p
apple 41p

+ =

+ =

+ =

+ =

Choose two of your own two items and calculate the cost.

Look at the prices of the items in a sports shop.
Calculate the costs of the items bought.

shuttlecock 14p
rugby ball 49p
cricket ball 38p
basketball 52p
tennis racket 78p
football 33p

+ =

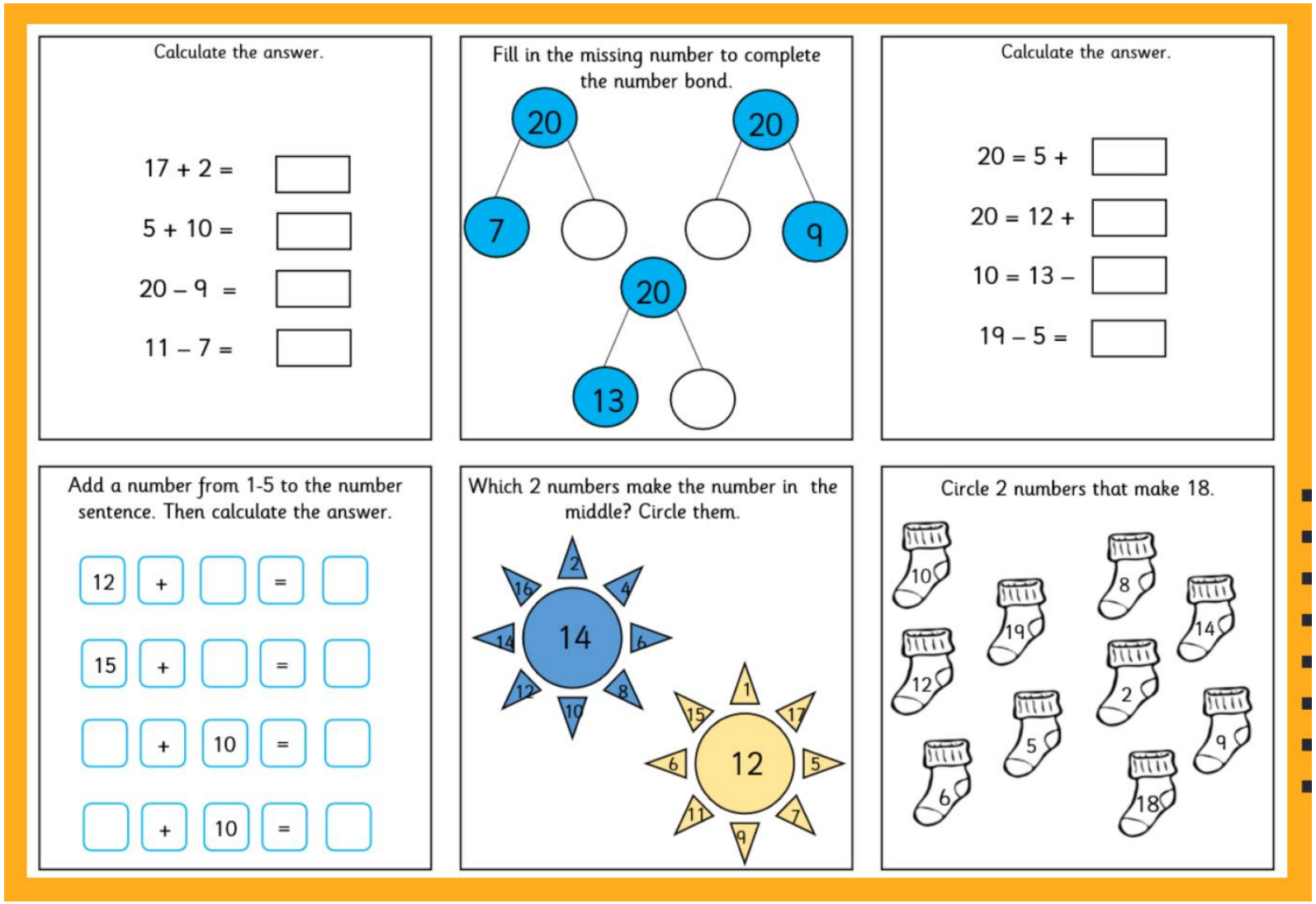
+ =

+ =

+ =

Choose two of your own two items and calculate the cost.

Year 2


Calculate the answer.
17 + 2 =
5 + 10 =
20 – 9 =
11 – 7 =
Fill in the missing number to complete the number bond.
20
20
7
9
20
13
Calculate the answer.
20 = 5 +
20 = 12 +
10 = 13 –
19 – 5 =
Add a number from 1-5 to the number sentence. Then calculate the answer.
12 + = =
15 + = =
+ 10 = =
+ 10 = =
Which 2 numbers make the number in the middle? Circle them.
14
12
Circle 2 numbers that make 18.
10
19
8
14
12
2
5
9
6
18

Year 3

In Focus

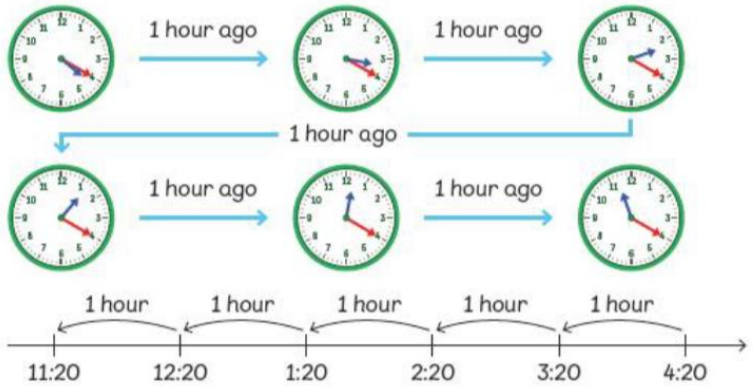
We have been here for 5 hours!

Emma

At what time did Emma arrive?

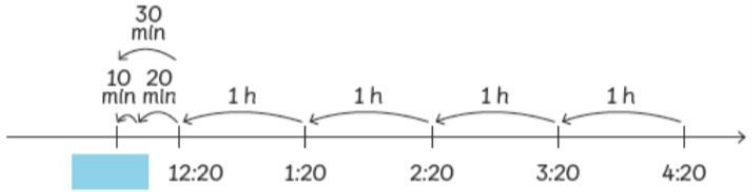
Let's Learn

1



Emma arrived at 11:20 in the morning.

2 What if Emma had been there for 4 hours and 30 minutes?



Then, Emma would have arrived at _____ in the morning.

Guided Practice

At what time did each of them arrive?

(a) I have been here for an hour.

_____

(b) I have been here for 3 hours.

_____

(c) I have been here for 4 hours.

_____

Year 3

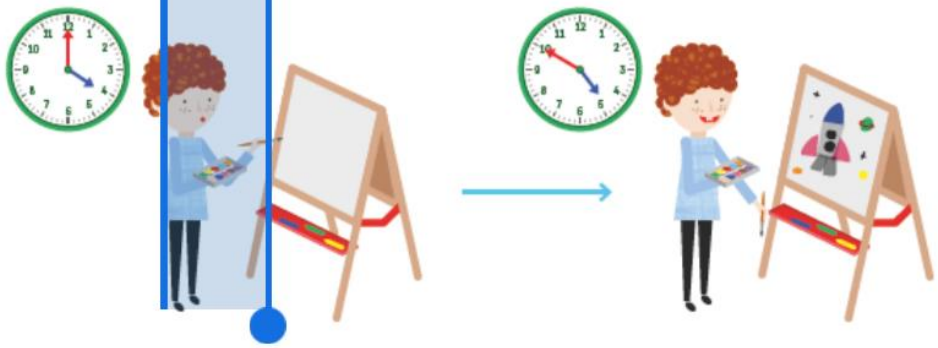
Measuring Time in Hours

Elliott, Emma, Amira and Hannah completed their homework at the same time: at 2:48 p.m. What time did each of them start doing it? Fill in the blanks with the correct time.

name	start time	time spent	end time
 Elliott		I spent 3 hours doing my homework.	2:48 p.m.
 Emma		I did my my homework for 4 hours.	
 Amira		I only spent 1 hour on my homework.	
 Hannah		I worked for 2 hours and 30 minutes.	

Year 3

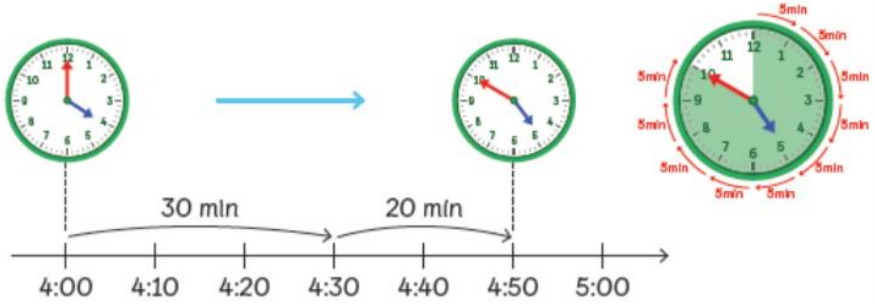
In Focus



How long did Elliott take to finish the painting?

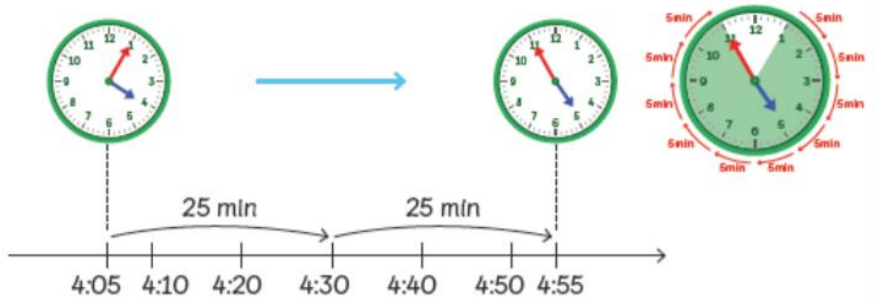
Let's Learn

1 Find the number of minutes Elliott took to paint.



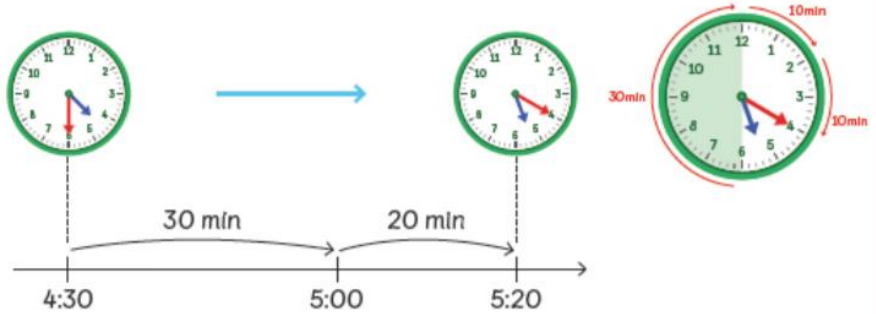
Elliott took 50 minutes to finish the painting.

2 If Elliott started at 4:05 p.m., at what time would he finish the painting?



Elliott would finish the painting at 4:55 p.m.

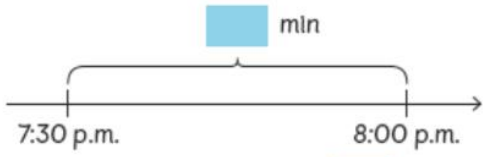
3 If Elliott started at 4:30 p.m., at what time would he finish the painting?



Elliott would finish the painting at 5:20 p.m.

Year 3

4 Lulu wants to watch "Eastenders". How long is the programme?

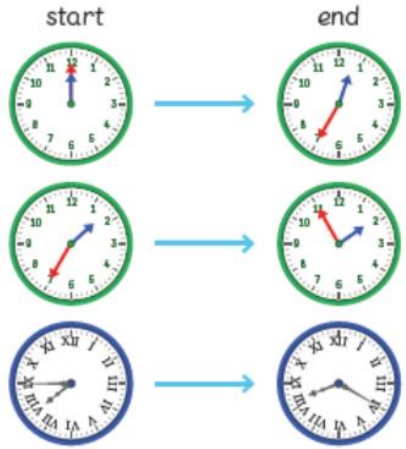


The programme lasts for ☐ minutes.

We can also ask, "What is the duration of the programme?"

Guided Practice

1 Write down how long each activity took.



☐ minutes

☐ minutes

☐ minutes

Suggest what each activity could be.

2 Write down how long each activity took.

(a) start 11:06 → end 11:40

☐ minutes

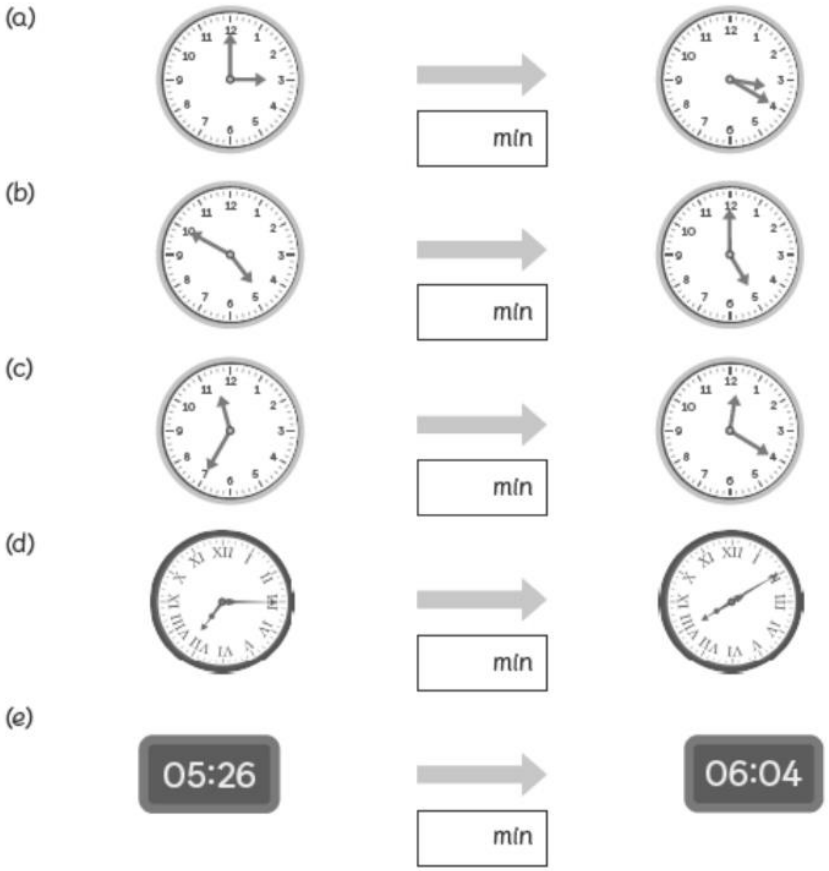
(b) start 09:54 → end 10:17

☐ minutes

Worksheet 14

Measuring Time in Minutes

How many minutes have gone by? Fill in the blanks.



Year 4

In Focus

Look at Emma's number pattern.

177	277	377	477	577	677	777	?

What is the next number in the pattern?

Year 4

Making Number Patterns

1 Complete the table.

Number	1 more than the number	10 more than the number	100 more than the number
5938			
8999			

Number	1 less than the number	10 less than the number	100 less than the number
4818			
2791			

2 Complete the number patterns.

(a) 430, 530, ☐ , ☐ , 830, ☐

(b) 7560, ☐ , ☐ , 7590, ☐ , 7610

3 Find the missing numbers.

(a) 1429 is ☐ more than 1419.

(b) 3299 is 1 less than ☐ .

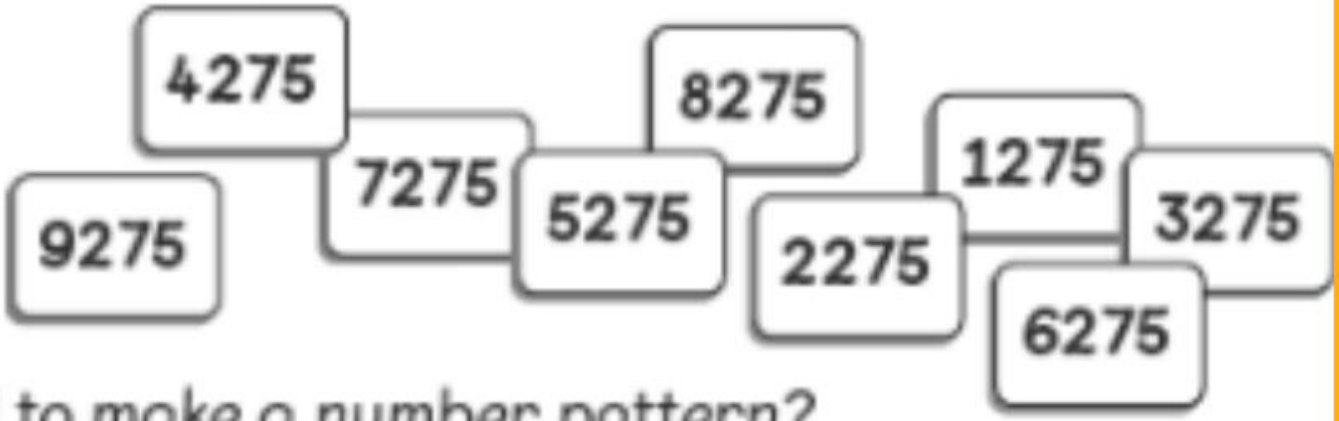
(c) ☐ is 100 more than 1923.

(d) ☐ more than 5550 is 5650.

(e) 10 less than 2903 is ☐ .

Year 4

In Focus



Can these numbers be used to make a number pattern?
Describe the rule used to make the number pattern.

Year 4

Making Number Patterns

1 There are 1295 pupils in School A.
There are 1000 fewer pupils in School B than there are in School A.
There are 1000 more pupils in School C than there are in School A.

(a) How many pupils are there in School B? ☐

(b) How many pupils are there in School C? ☐

2 Complete the number patterns.

(a) ☐ , ☐ , 5025, 6025, 7025, ☐

(b) 8989, ☐ , 6989, 5989, ☐ , ☐

3 Find the missing numbers.

(a) 1000 more than 4938 is ☐ .

(b) 5467 is ☐ less than 6467.

(c) 6215 is 1000 more than ☐ .

(d) ☐ is 1000 less than 2871.

(e) 8627 is 1000 less than ☐ .

Year 5

Finding Prime Numbers

1 Circle all the numbers that have only two factors.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

The prime numbers less than 50 are:

2 Ruby finds the factors of 9 as shown below.

$9 = 1 \times 9$

$9 = 3 \times 3 = 3^2$

Use Ruby's method to write the factors of each of these numbers.

(a) 16

(b) 25

(c) 64

Year 5

Multiplying 10, 100 and 1000

1 Multiply.

(a) $2 \times 10 = \square$
$2 \times 100 = \square$
$2 \times 1000 = \square$

(b) $19 \times 10 = \square$
$19 \times 100 = \square$
$19 \times 1000 = \square$

(c) $6 \times 10 = \square$
$6 \times 100 = \square$
$6 \times 1000 = \square$

(d) $10 \times 10 = \square$
$10 \times 100 = \square$
$10 \times 1000 = \square$

(e) $15 \times 10 = \square$
$15 \times 100 = \square$
$15 \times 1000 = \square$

(f) $270 \times 10 = \square$
$270 \times 100 = \square$
$270 \times 1000 = \square$

(a) $5 \times \square = 5000$

(b) $12 \times 100 = \square$

(c) $\square \times 100 = 2700$

(d) $100 \times \square = 1000$

(e) $\square \times 10 = 430$

(f) $25 \times \square = 2500$

3 Match.

4 × 100	5 × 100
6 × 1000	10 × 40
10 × 50	1 × 2000
200 × 10	10 × 600

Year 5

Worksheet 6

Finding Square and Cube Numbers

1 Find the square numbers and then fill in the blanks.

$\boxed{4} = 2 \times 2 = 2^2$

$\boxed{} = 3 \times 3 = \boxed{}$

$\boxed{} = \boxed{} \times \boxed{} = 4^2$

$\boxed{} = \boxed{} \times \boxed{} = 5^2$

$\boxed{} = 6 \times 6 = \boxed{}$

$\boxed{} = 7 \times 7 = \boxed{}$

$\boxed{} = \boxed{} \times \boxed{} = 8^2$

$\boxed{} = \boxed{} \times \boxed{} = 9^2$

$\boxed{} = 10 \times 10 = \boxed{}$

2 Find the cube numbers and then fill in the blanks.

$\boxed{8} = 2 \times 2 \times 2 = \boxed{2^3}$

$\boxed{} = 4 \times 4 \times 4 = \boxed{}$

$\boxed{} = \boxed{} \times \boxed{} \times \boxed{} = 5^3$

$\boxed{} = 6 \times 6 \times 6 = \boxed{}$

3 Sam writes 18 as a product of prime numbers as shown below.

$18 = 2 \times 9$
$= 2 \times 3 \times 3$
$= 2 \times 3^2$

Use Sam's method to write these numbers as a product of prime numbers:

(a) 36 =

(b) 60 =

(c) 72 =

(d) 90 =

Year 6

Solving Word Problems

1 A bakery sells its doughnuts in packs of 3 or 9 each.

(a) Elliott spent £44 on doughnuts. What is the largest number of doughnuts he could buy?

(b) Ruby bought 33 doughnuts. What is the smallest amount of money she had to pay?

Year 6

2 A grocer bought 12 crates of peaches at £48 per crate. There are 25 peaches in each crate. He packed all the peaches in boxes of 5 and sold them at £14 per box.

(a) How much did he get from selling all of the peaches?

(b) How much profit did he make from selling all of the peaches?

Year 6

3 Two wooden planks measuring 180 cm and 200 cm are both cut into equal-sized pieces. What is the longest each piece could measure?

4 A grocer wants to divide 108 apples and 84 oranges into baskets so that each basket contains some apples and oranges. She wants an equal number of apples and an equal number of oranges in each basket. What is the greatest number of baskets she would need?

Year 6

3 Circle the greatest number.

(a)

6 782 600	6 872 000	6 678 200	6 867 200

(b)

2 798 003	2 987 003	2 897 003	2 789 003

4 Circle the smallest number.

(a)

2 364 789	2 436 789	2 439 876	2 346 789

(b)

7 477 400	7 747 400	7 774 400	7 744 700

5 Fill in the blanks with > or <.

(a) 1 200 569 ☐ 1 205 096

(b) 4 566 700 ☐ 4 656 007

(c) 6 933 057 ☐ 5 976 330

(d) 8 957 605 ☐ 9 000 002

Year 6

Comparing and Ordering Numbers to 10 Million

1 Make six 7-digit numbers by using the digits 5, 5, 6 and 6 to fill in the blanks. Then arrange the numbers from the smallest to the greatest.

?	?	?	?	0	0	0

2 Make five 7-digit numbers by using the digits 1, 1, 1, 1 and 9 to fill in the blanks. Then arrange the numbers from the greatest to the smallest.

?	?	?	?	?	0	0