## Number patterns

1 Repeatedly add ten to complete these number patterns.
a


2 a Start at 40 and count forwards by tens.

| 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

b Start at 36 and count forwards by tens.

| 36 | 46 | 56 | 66 | 76 | 86 | 96 | 106 | 116 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

C Start at 337 and count backwards by tens.

| 337 | 327 | 317 | 307 | 297 | 287 | 277 | 267 | 257 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

3 a I am between 80 and 90. b I am between 20 and 30 . When you count by tens from 7 , you say me.
I am 87 When you count back by tens from 86 , you say me.
I am 26

## Twos, fives and tens

1 Complete each number pattern.


2 Say the numbers in order to find which number is missing from the pattern. Write the missing number.


Which numbers are we? You say us when you count by $2 s$ from 0 . Our digits are the same. We are less than 100.


## Reading and writing numbers

1 Draw a line to match each number to its name.


2 Write the number represented by the each abacus.
a

d


## 700



What is the number?
a 13 tens and 5 ones

C
15 tens and 3 ones

d
34 tens


## Number line patterns

1) Press 2 and + on a calculator. Keep pressing $==$ to make the calculator count by 2 s .

2 Use a calculator to count to 50 by 5 s and by 10 s .
a Write the number patterns.

| fives | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| tens | 10 | 20 | 30 | 40 | 50 |
| :--- | :--- | :--- | :--- | :--- | :--- |



Discuss why there are numbers that are the same.
b Which numbers are the same? 10.20304050
3 Start at 24 and jump backwards by 2 s to 0 .


When you count back by 2 s, how many jumps from 24 to


Draw how to jump back to zero from 20 in 5 equal jumps.


## Odds and evens

1 Colour the odd numbers red and the even numbers green.

| 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 |

2 Complete these odd and even number patterns.

| a $31,33,35$ | 37 | 39 | 41 |
| :--- | :---: | :---: | :---: |
| b $23,25,27$ | 29 | 31 | 33 |
| (c $40,42,44$ | 46 | 48 | 50 |
| (d $152,154,156$ | 158 | 160 | 162 |

3 Add the even numbers below, and write the answers in the boxes.
a $20+6=26$ b $8+42=50$ c $100+12=112$
d Are the answers odd or even? $\qquad$ even

4 Add the odd numbers below, and write the answers in the boxes.
a $21+9=30$
b $3+47=50$
c $101+15=116$
d Are the answers odd or even? $\qquad$ even

5 Add the odd and even numbers below, and write the answers in the boxes.
a $20+7=27$
(b) $43+8=$ $\square$ c $101+12=113$
d Are the answers odd or even? $\qquad$ odd

## Number trains

1 Write a number sentence for each number train. The first one has been done for you.
a

b


$$
7+5=12
$$

c


$$
5+7=12
$$

$$
2+10=12
$$

e

g

$$
9+3=12
$$

$\qquad$

$$
12+0=12
$$

d

f
)

$$
4+8=12
$$


$10+2=12$
h


$$
1+11=12
$$

$0+12=12$
k


$11+1=12$
2. Make each number train from Question 1 using Base 10 blocks. Put the trains in an order to find the one that is missing. Colour in the number train and write its number sentence.


Two numbers add to 20 . With a friend, list all the possible number combinations that can add to equal 20.

$$
\text { can add to equal } 20 \text {. }
$$



$$
3+9=12
$$

## Family of numbers

1 Write 4 number sentences to describe each of these number families.
a

b

$7+3=10$
$10-7=3$
C

$$
\begin{aligned}
& 4+6=10 \\
& \hline 10-6=4
\end{aligned}
$$

$$
\begin{aligned}
& 6+4=10 \\
& \hline 10-4=6
\end{aligned}
$$

2 Write the number families for each of these.
a $9+1=10$

$$
1+9=10
$$

$$
10-1=9
$$

$$
10-9=1
$$

b $15+3=18$
$3+15=18$

$$
18-3=15
$$

$$
18-15=3
$$

c) $14+6=20$

$$
20-6=14
$$

$$
20-16=4
$$

3 a If $27+13=40$, then $40-27=13$
b if $20-7=13$, then $13+7=20$

## Addition patterns

1 Complete these addition cards.

Look at each card and describe the patterns.
$\left\{\begin{array}{l}5+10=15 \\ 5+20=25 \\ 5+30=35 \\ 5+40=45 \\ 5+50=55 \\ 5+60=65 \\ 5+70=75\end{array}\right.$
b

- $c$

$$
5+10=15
$$

$$
5+20=25
$$

$$
5+30=35
$$

$$
5+40=45
$$

$$
5+50=55
$$

$$
5+60=65
$$

$$
5+70=75
$$

d

$$
\begin{aligned}
& 12+10=22 \\
& 12+20=32 \\
& 12+30=42 \\
& 12+40=52 \\
& 12+50=62 \\
& 12+60=72 \\
& 12+70=82
\end{aligned}
$$

2. Write the next question for each pattern.

## What does each card <br> show you about addition?

$$
\begin{gathered}
5+80=85 \\
77+10=87 \\
72+0=72 \\
12+80=92
\end{gathered}
$$

## Subtraction patterns

1 Complete these subtraction cards.


$$
\begin{aligned}
& 10-10=0 \\
& 20-10=10 \\
& 30-10=20 \\
& 40-10=30 \\
& 50-10=40 \\
& 60-10=50 \\
& 70-10=60
\end{aligned}
$$

d

$$
100-10=90
$$



What does each card show you about subtraction?

$$
100-20=80
$$

$$
100-30=70
$$

2 Write the next question for each pattern.

$$
100-40=60
$$

$$
100-50=50
$$

$$
100-60=40
$$

$$
100-70=30
$$

## Is the same as

1. Write the number needed to bolance each scale. Complete the number sentence to match.


20 is the same as $16+4 . \quad 20$ is the same as $5+15$.


2 Try these.
a $20=17+3$
b $12+8=10+10$
c $7+5=10+2$
d $30+70=50+50$


