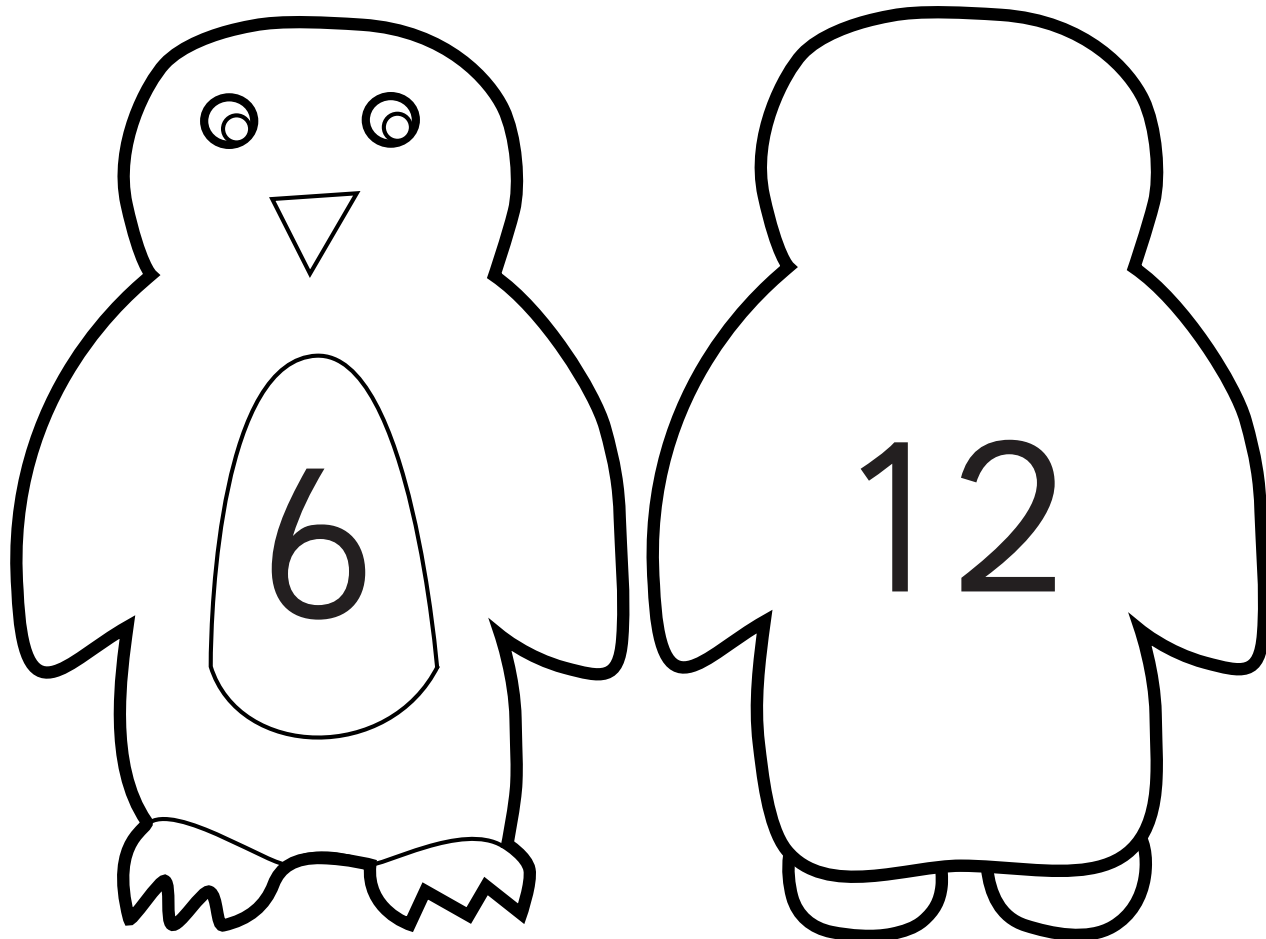
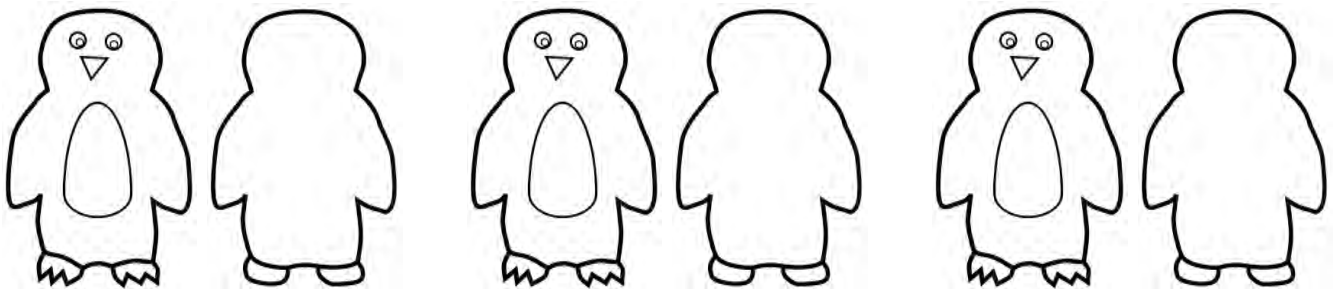


Penguin Pick Ups



A set of 18 double sided penguin cards
and photocopiable sheets to teach
the strategy of 'halving' and 'doubling'.

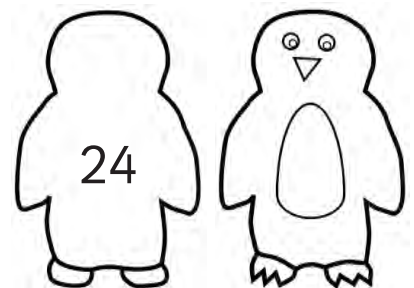
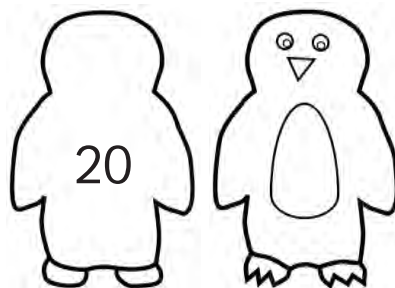
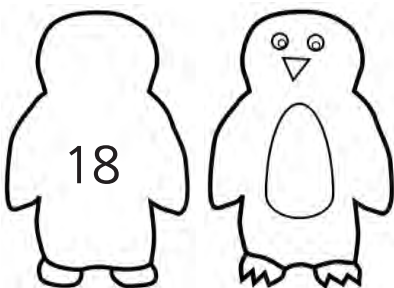
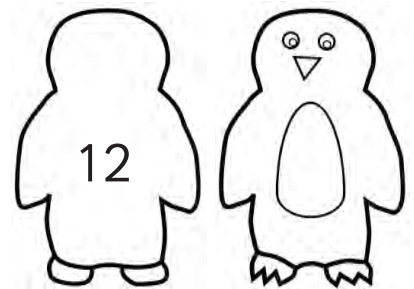
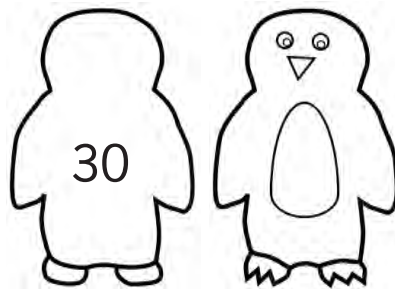
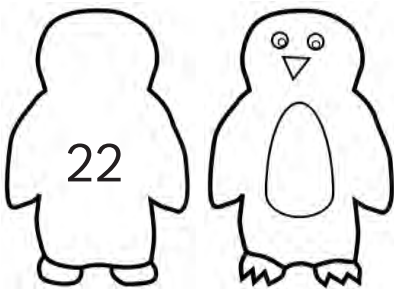
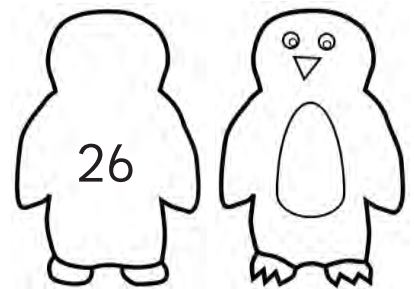
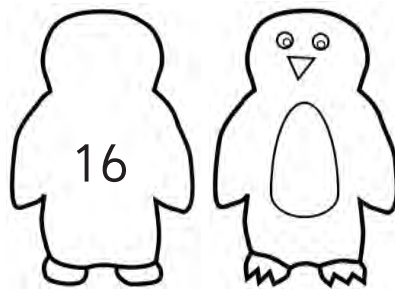
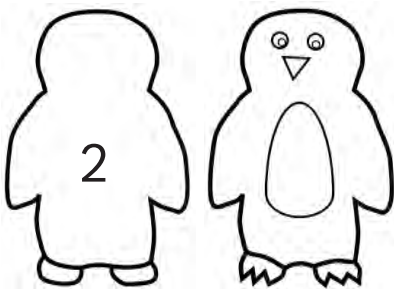
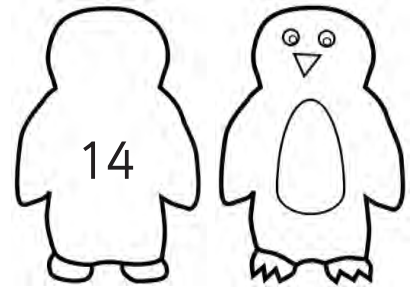
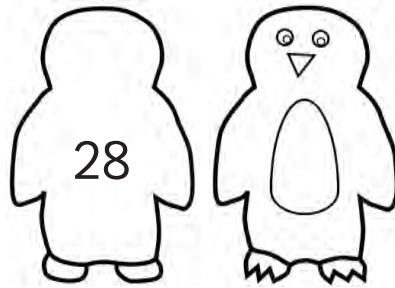
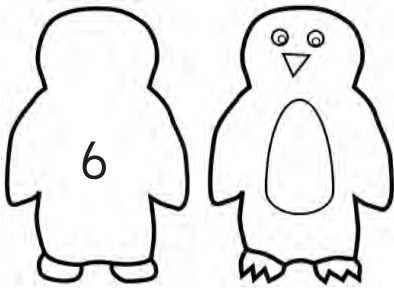
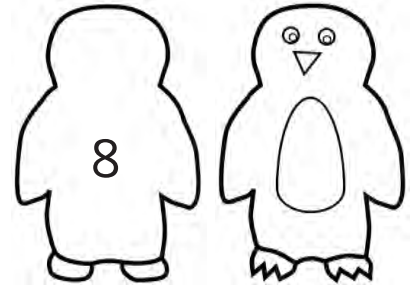
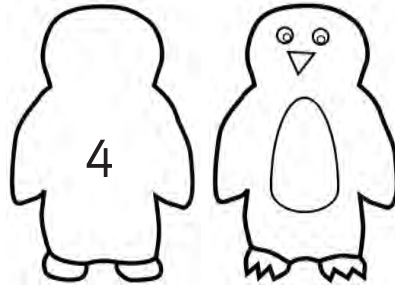
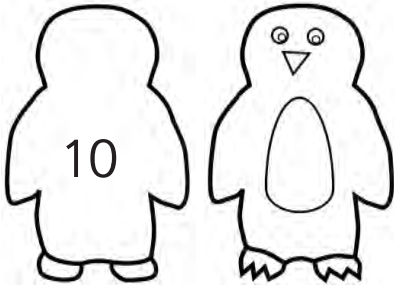
My Penguin Pick Ups Workbook



By:

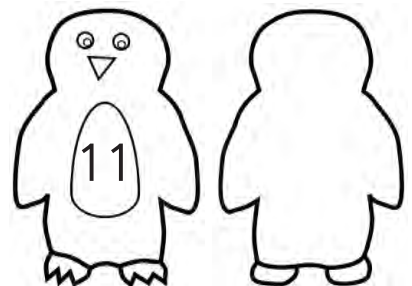
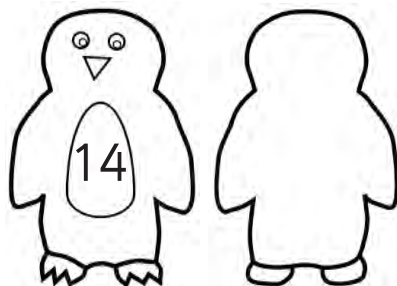
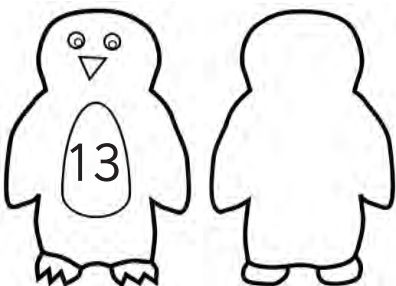
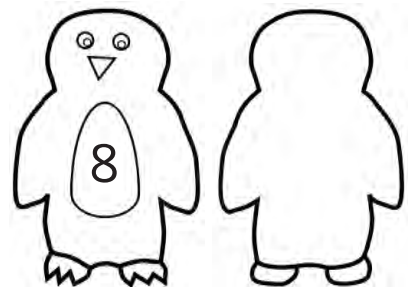
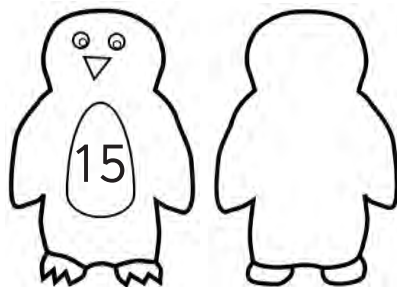
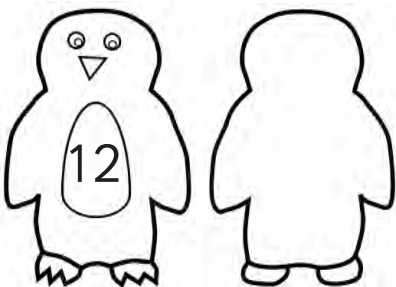
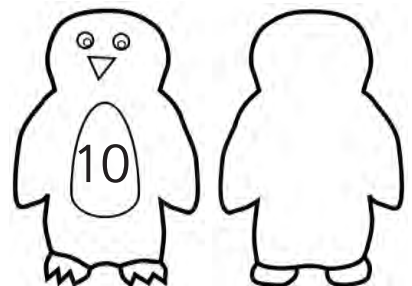
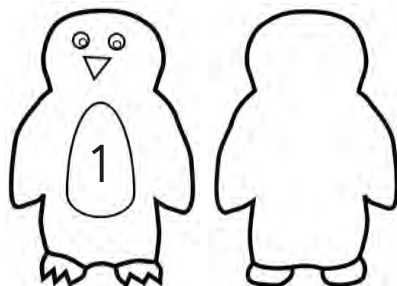
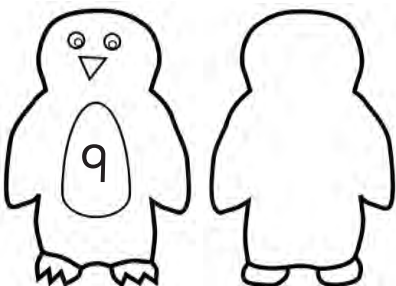
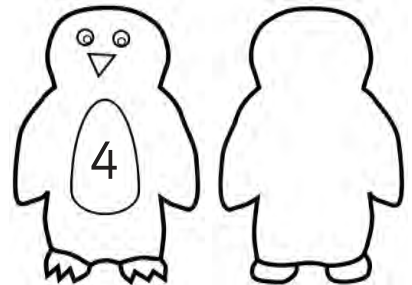
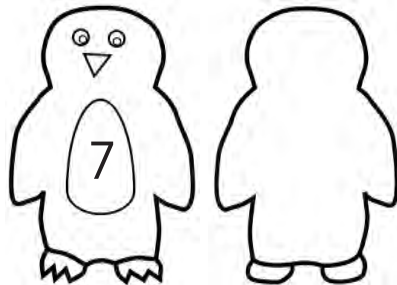
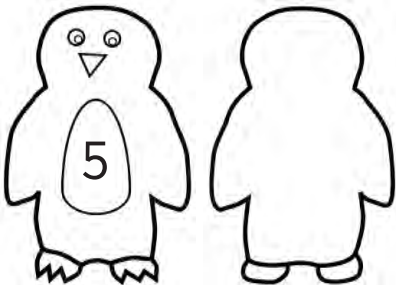
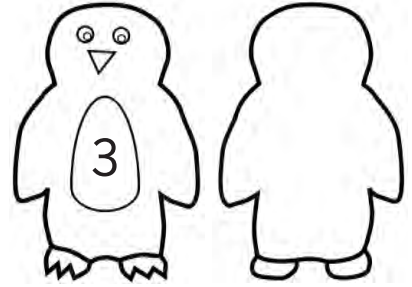
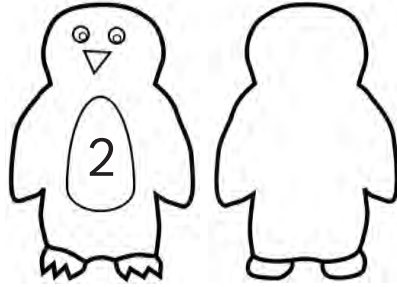
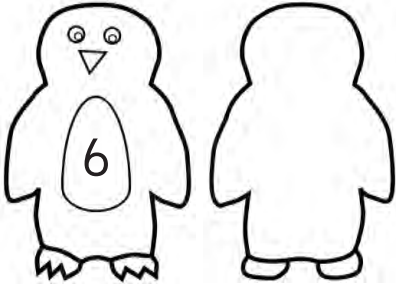
Half Time

Complete:



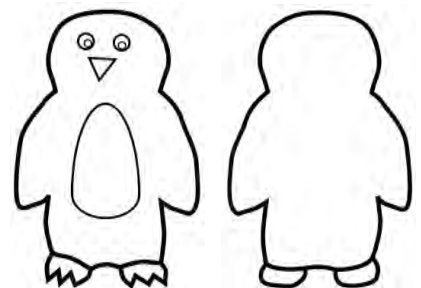
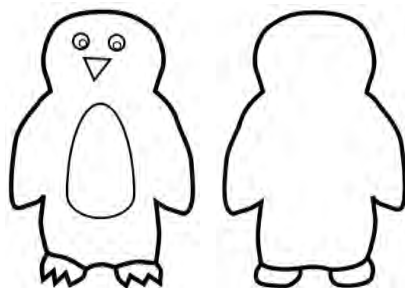
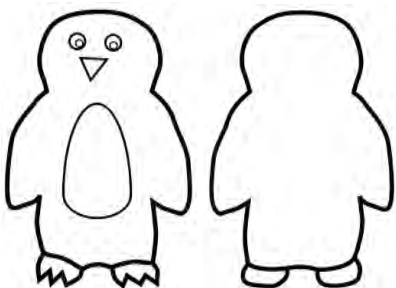
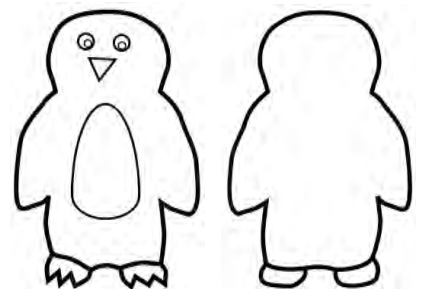
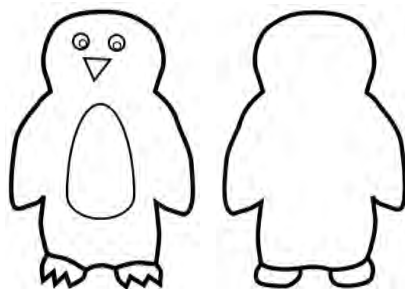
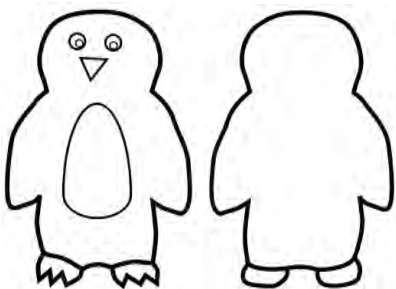
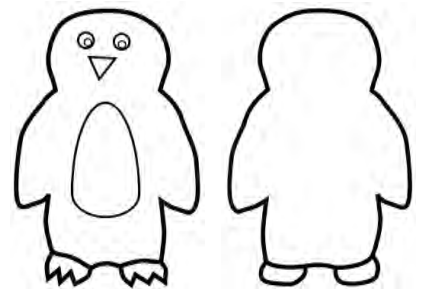
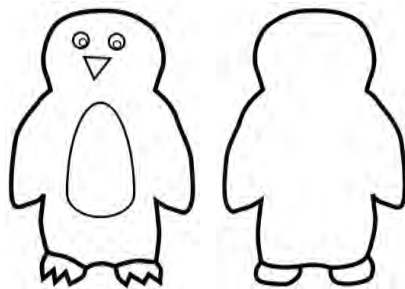
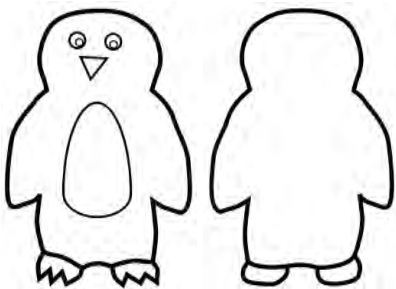
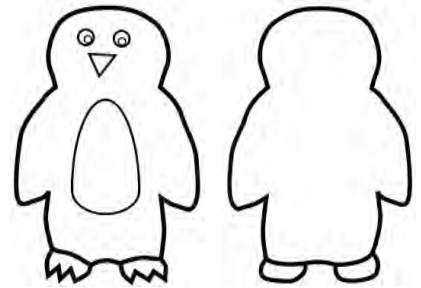
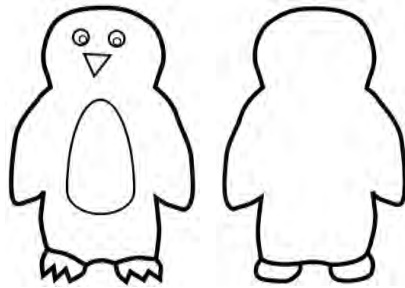
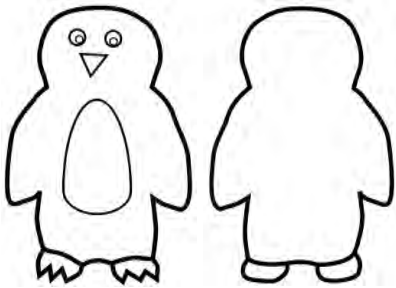
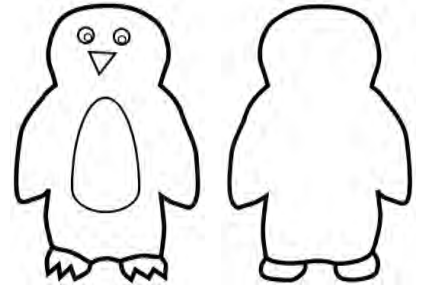
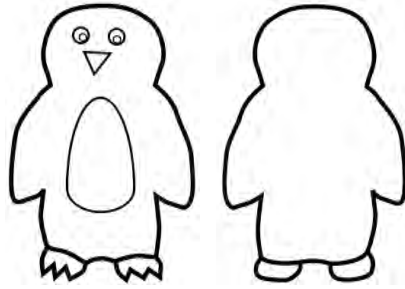
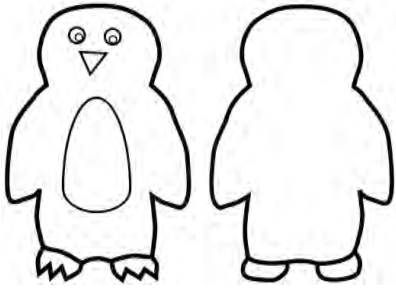
Double Time

Complete:



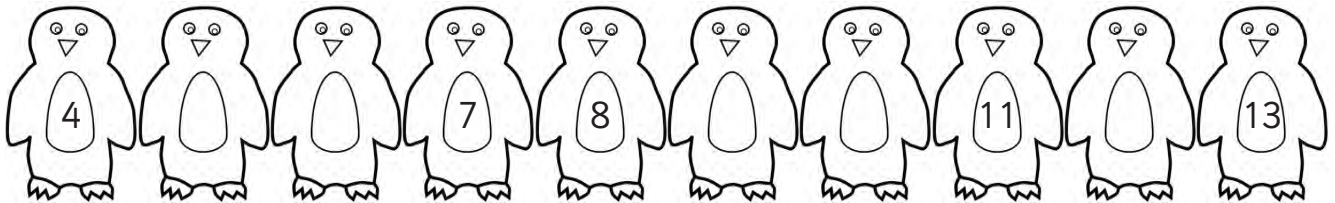
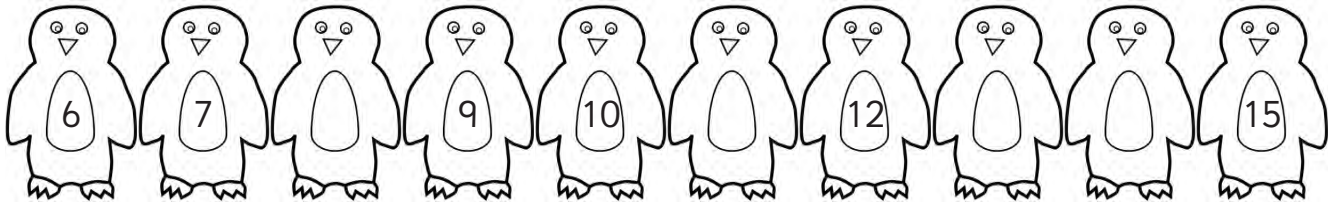
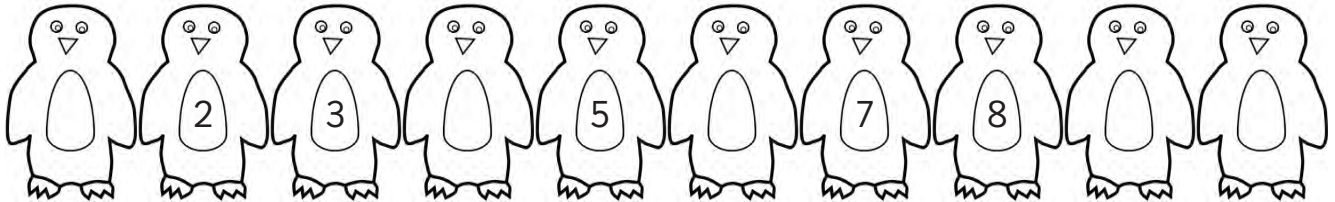
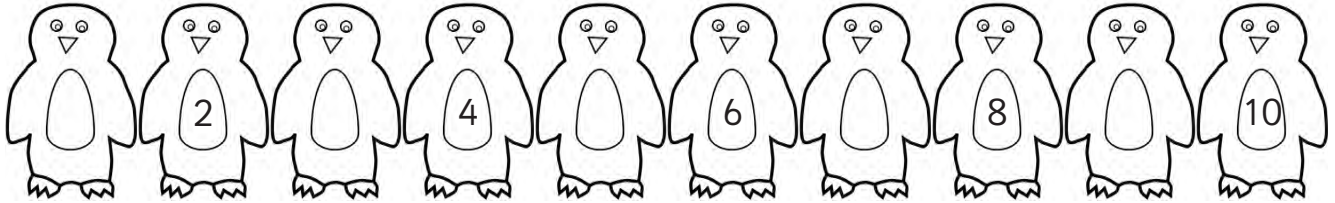
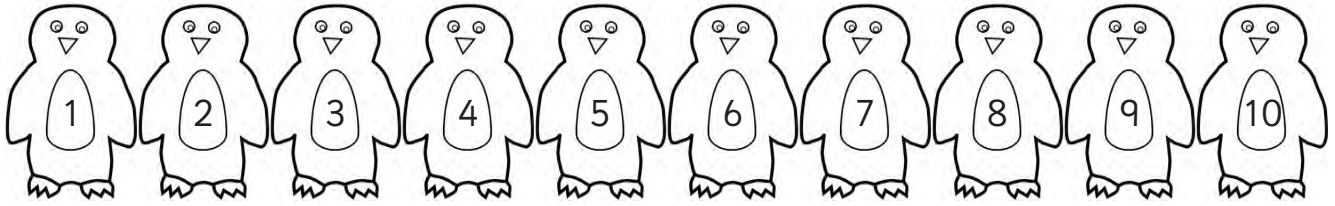
Free Time

Complete with your own **doubles** and **halves**.

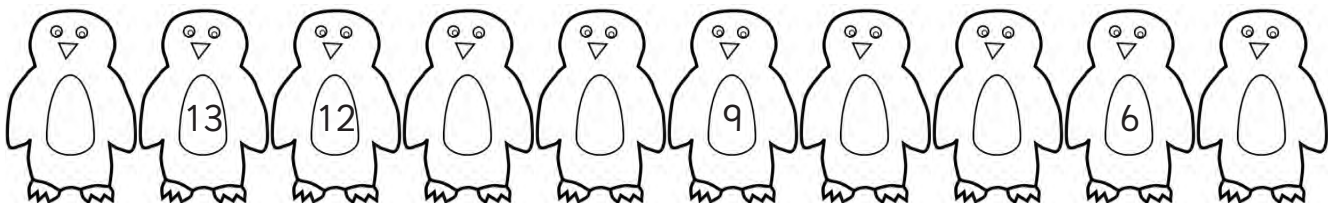
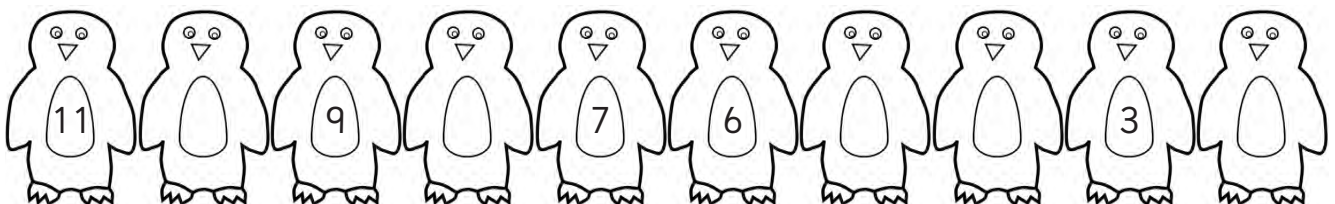


Missing Numbers

Write in the missing numbers.



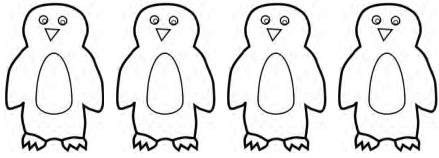
Now try these.



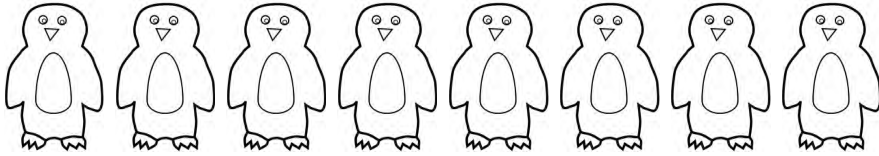
Finding Half of a Number

 $\frac{1}{2}$

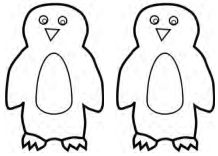
Count how many penguins in each group. Colour **half** of the number.



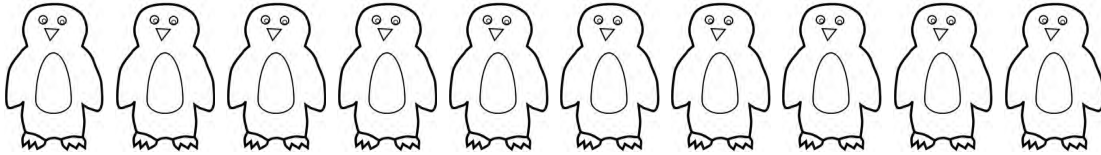
Half of =



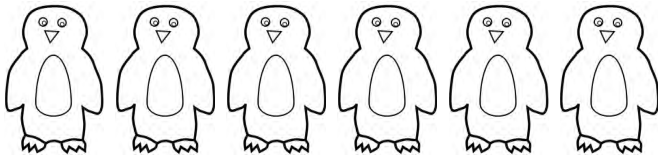
Half of =



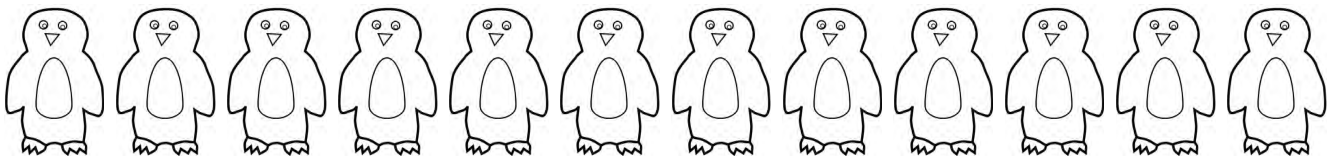
Half of =



Half of =



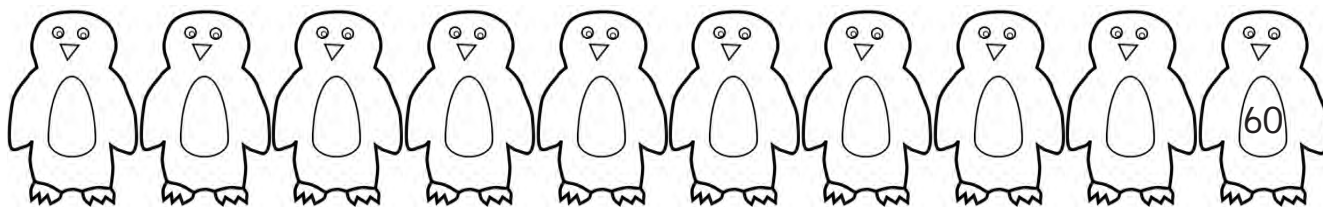
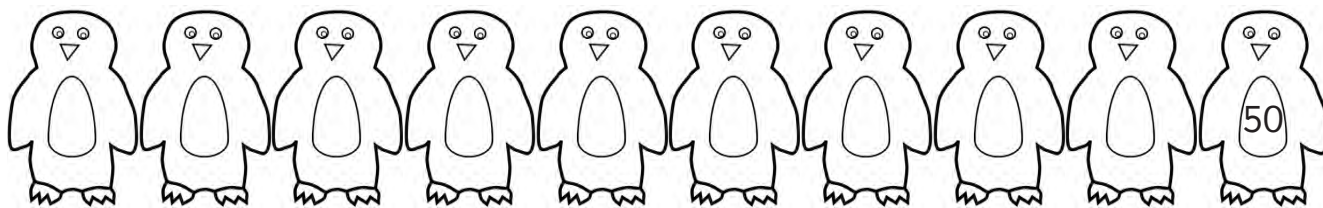
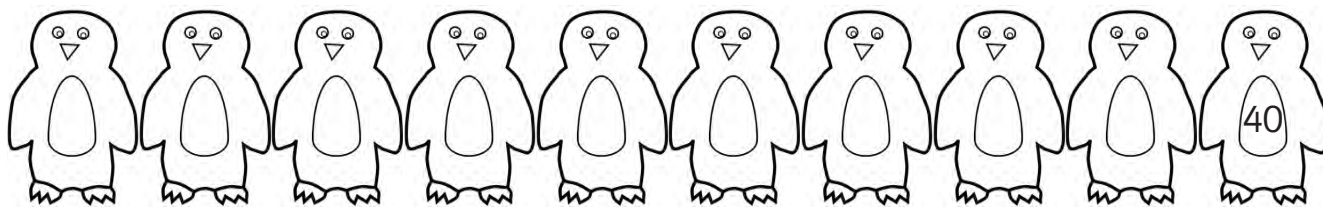
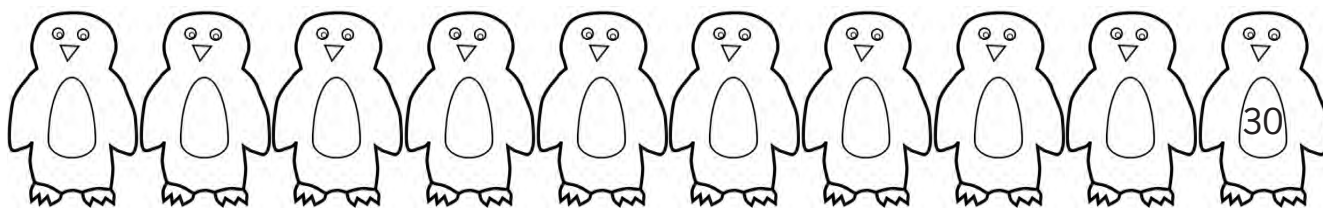
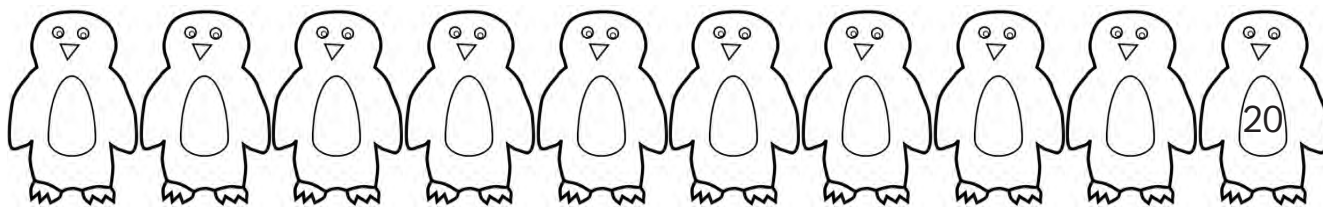
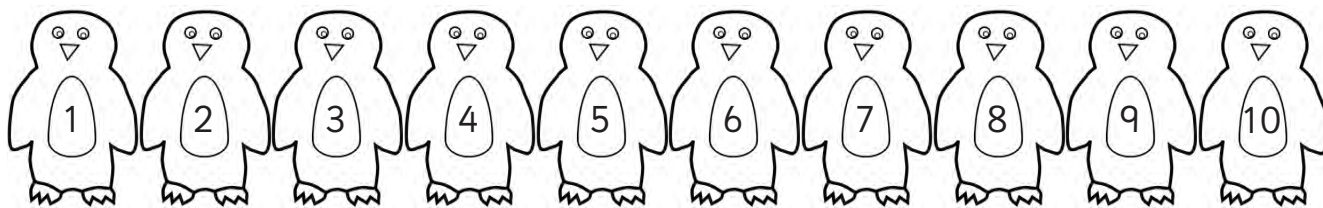
Half of =



Half of =

Penguin Colony

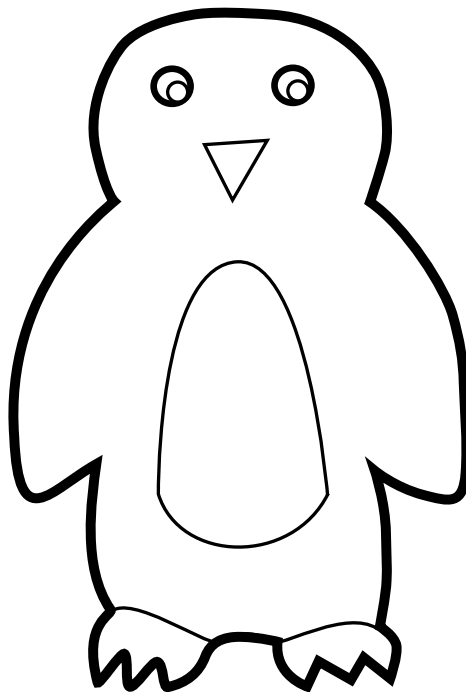
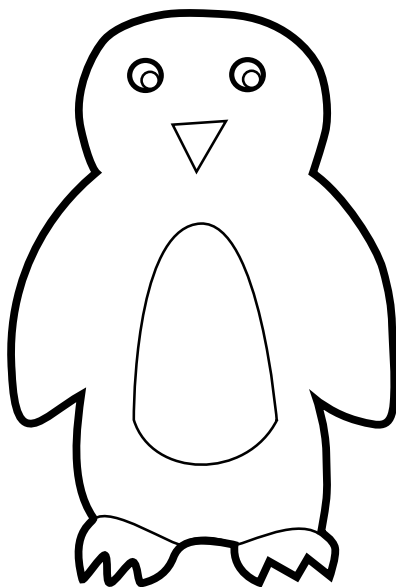
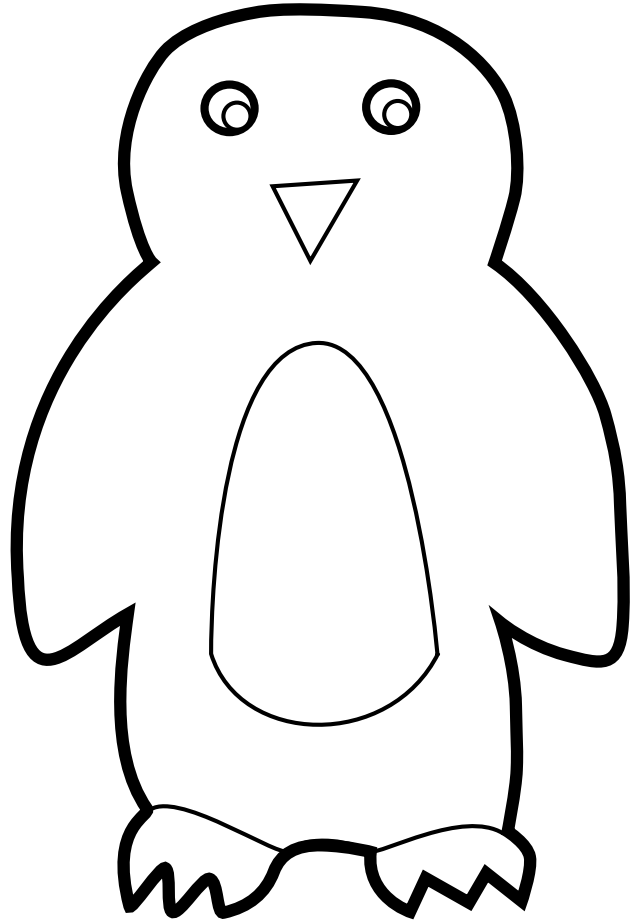
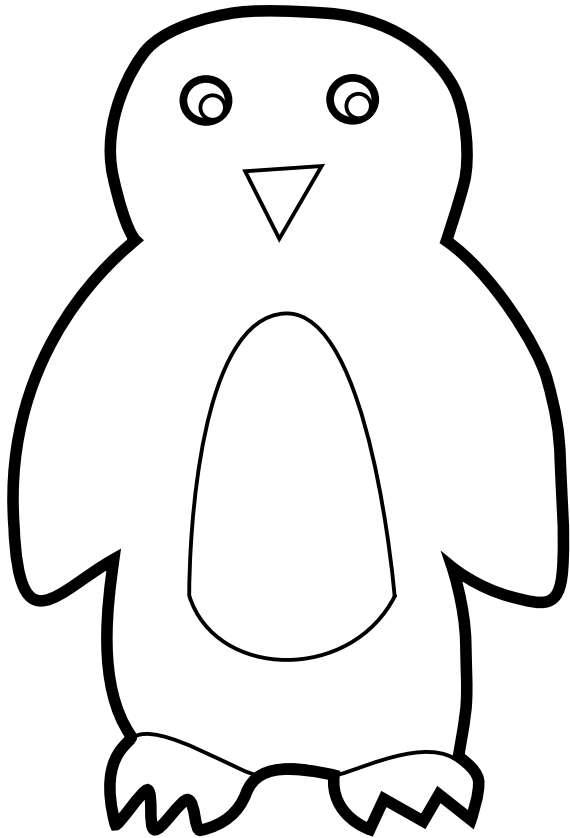
Write in the numbers from 11 to 60. Look how 1, 2, 3, 4, 5, 6, 7, 8, 9, 0 repeat!



Half of 60 = and so double = 60

Happy Families

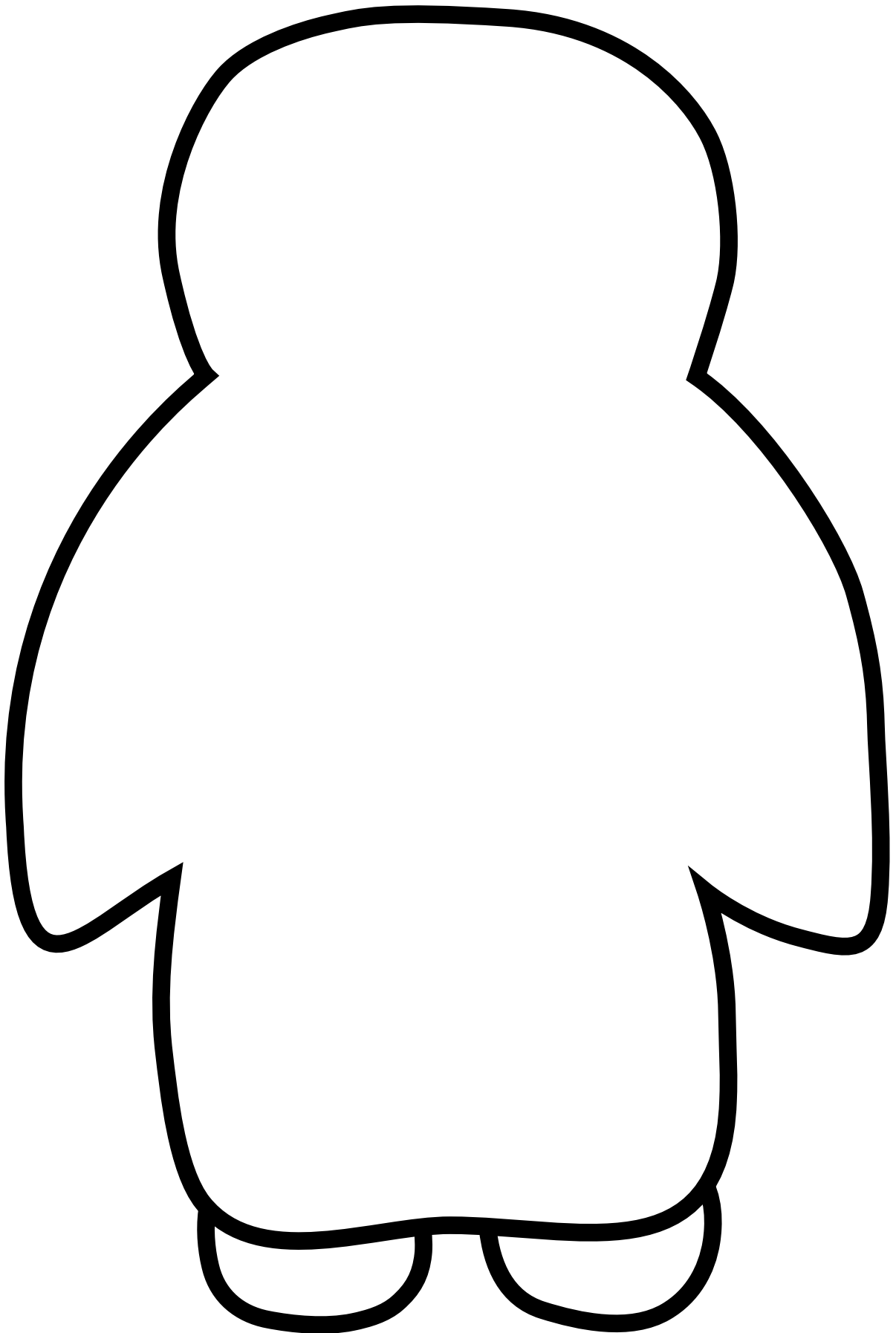
Make your own penguin happy family.

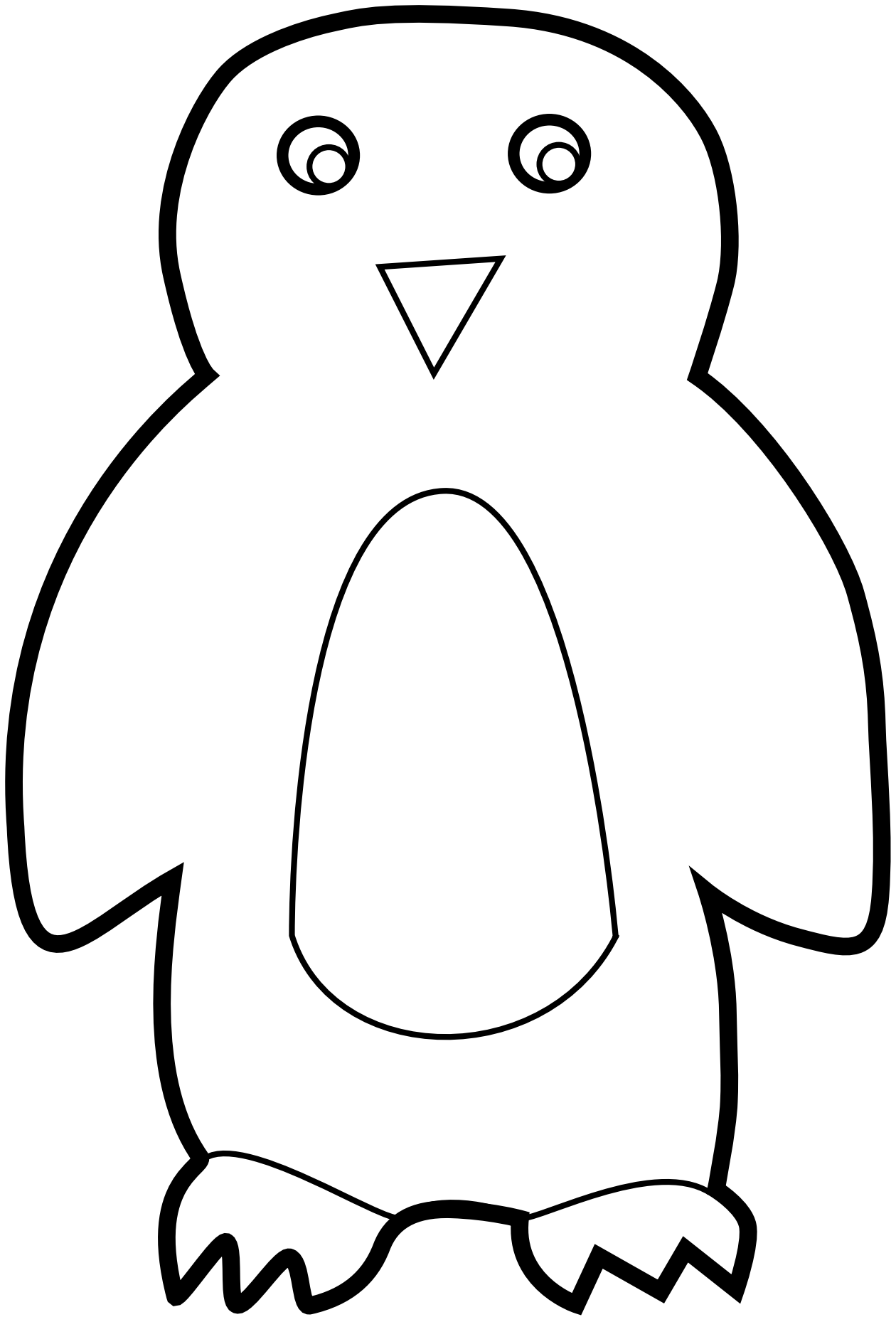


Colour
Cut Out
Create
Carefully!

Penguin Master - Back

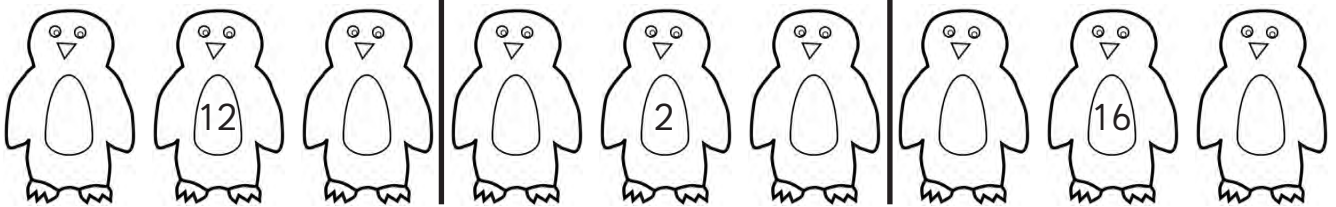
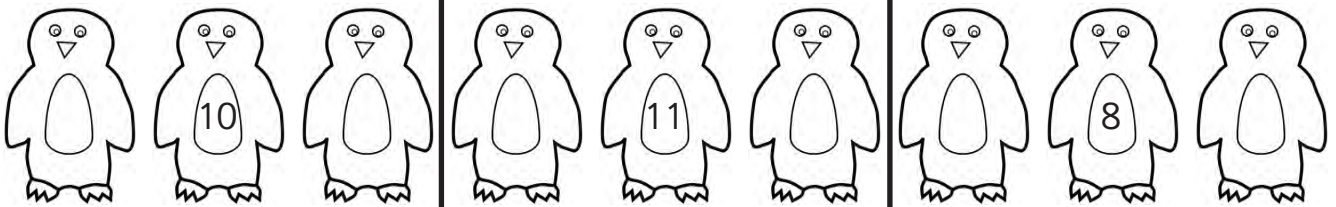
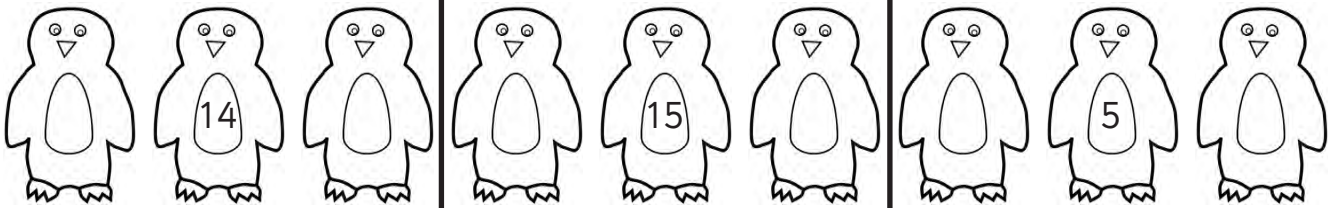
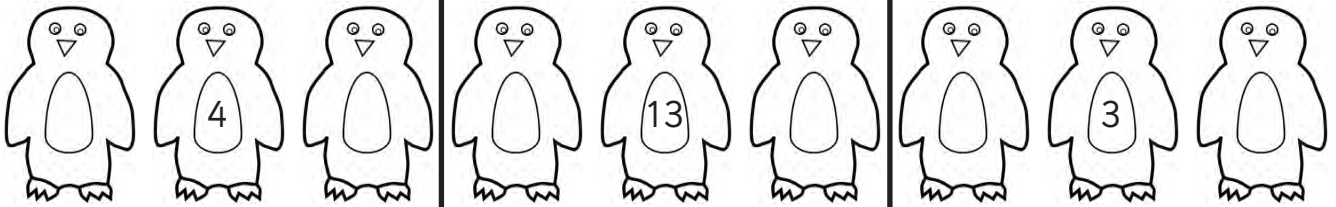
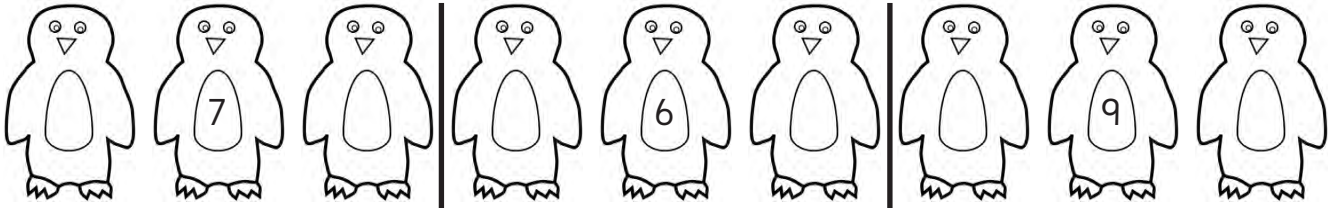
Make your own **even** number line.



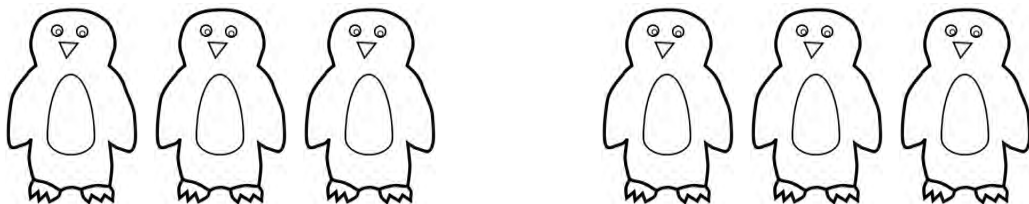


Number Before and After

Write the number before and after.

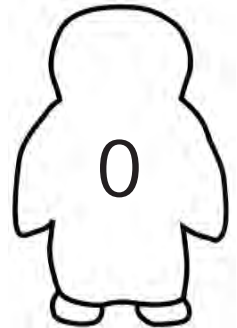
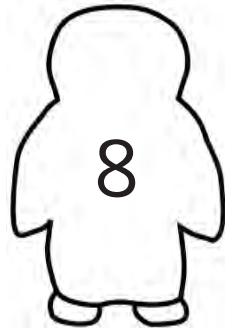
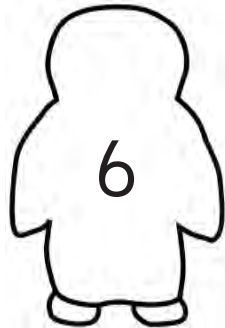
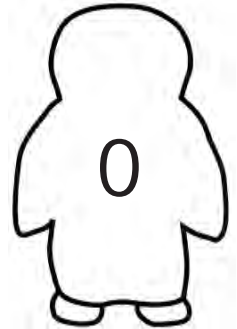
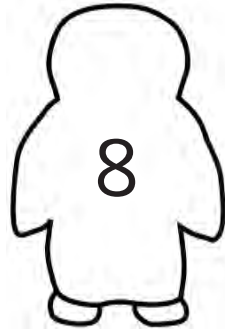
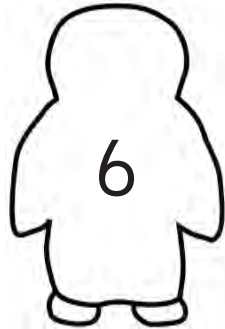
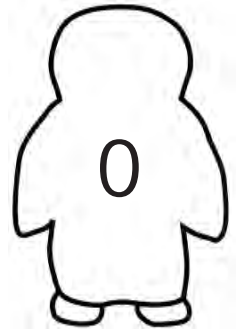
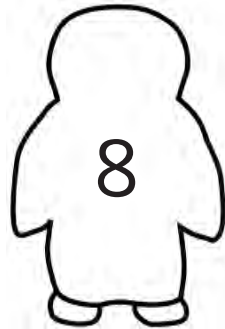
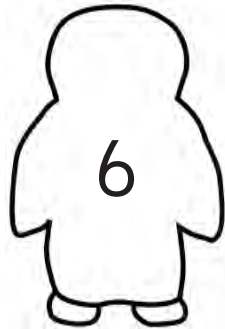
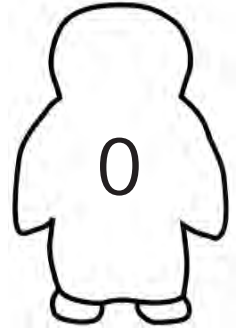
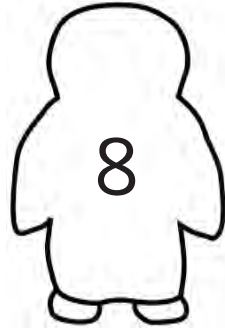
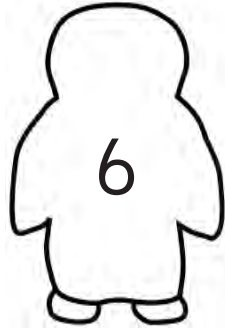
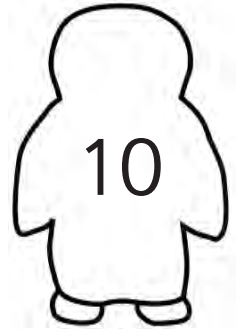
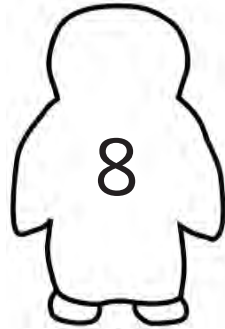
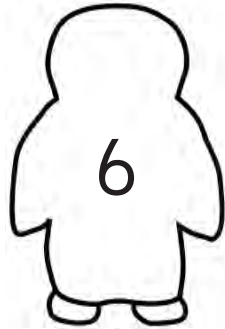


Now make up some of your own.



Even Numbers - Pattern

Look at the pattern 2, 4, 6, 8, 0. Write in the 'tens' to make numbers to 50.



Double Your Number

When we add the same number together we say it is a **double**.

Can you see the pattern when you double 11, 12, 13 and 14?

$1 + 1 = \square$

$11 + 11 = \square$

$2 + 2 = \square$

$12 + 12 = \square$

$3 + 3 = \square$

$13 + 13 = \square$

$4 + 4 = \square$

$14 + 14 = \square$

$5 + 5 = \square$

$15 + 15 = \square$

$6 + 6 = \square$

$7 + 7 = \square$

$8 + 8 = \square$

$9 + 9 = \square$

$10 + 10 = \square$

Remember double 15 is:



Doubles Off by Heart

Colour in the **doubles** you know **off by heart**.

$2 + 2$

$6 + 6$

$3 + 3$

$4 + 4$

$8 + 8$

$1 + 1$

$10 + 10$

$12 + 12$

$15 + 15$

$7 + 7$

$14 + 14$

$20 + 20$

$5 + 5$

$11 + 11$

$25 + 25$

$9 + 9$

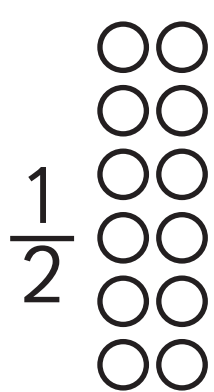
$13 + 13$

$50 + 50$

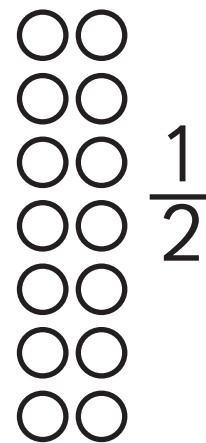
Half of a Number

This means **sharing** the number into **two equal groups**.

Colour **half** of each group of snowballs. Draw lines to help you.

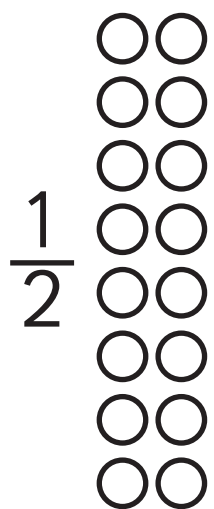


Half of 12 =

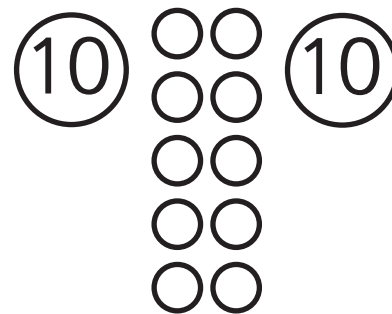


Half of 20 =

Half of 14 =



Half of 18 =



Half of 16 =

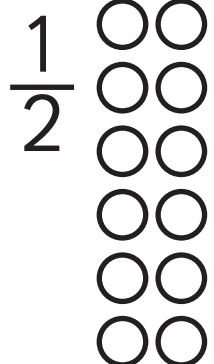
Half of 22 =



Half of 26 =

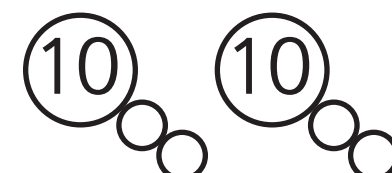


Half of 24 =



Half of 28 =

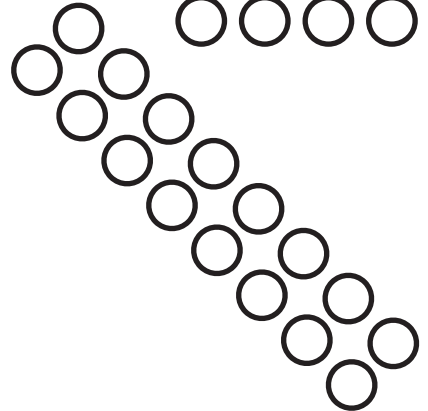
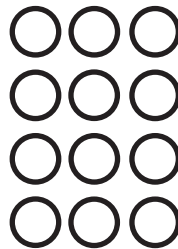
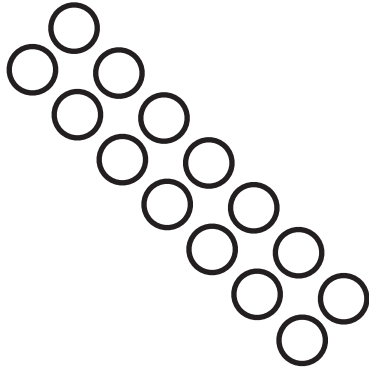
Half of 30 =



Half of a Number

This means **sharing** the number into **two equal groups**.

Colour in half of each group of the snowballs. Draw lines to help you **divide**.



Complete and practise writing $\frac{1}{2}$

$\frac{1}{2}$

Half of 2 =

Half of 6 =

Half of 4 =

Half of 10 =

Half of 8 =

Half of 16 =

Half of 14 =

Half of 12 =

$\frac{1}{2}$

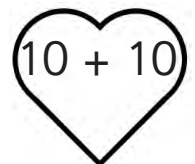
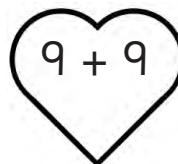
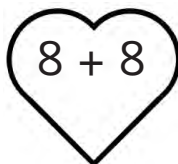
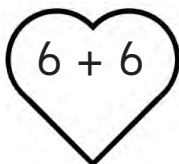
Doubles and Near Doubles

It is important to know your **doubles** off by heart.

You can then work out the near doubles. The answer will be above or below the double.

$5 + 5 = \square$	\nearrow	$4 + 5 = \square$
	\searrow	$5 + 6 = \square$
$6 + 6 = \square$	\nearrow	$6 + 7 = \square$
	\searrow	$7 + 8 = \square$
$7 + 7 = \square$	\nearrow	$8 + 9 = \square$
	\searrow	
$8 + 8 = \square$	\nearrow	
	\searrow	
$9 + 9 = \square$	\nearrow	

Colour in the doubles which you know off by heart.



Halves Off by Heart

Colour in the heart if you can **instantly recall** the **half** of the number.

4

12

6

8

16

2

20

24

30

14

28

40

10

22

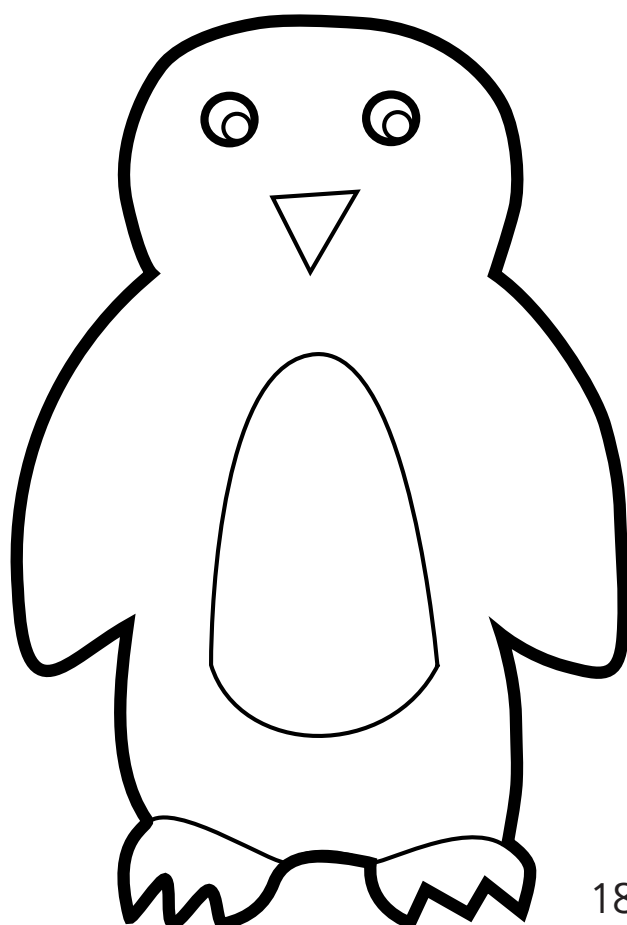
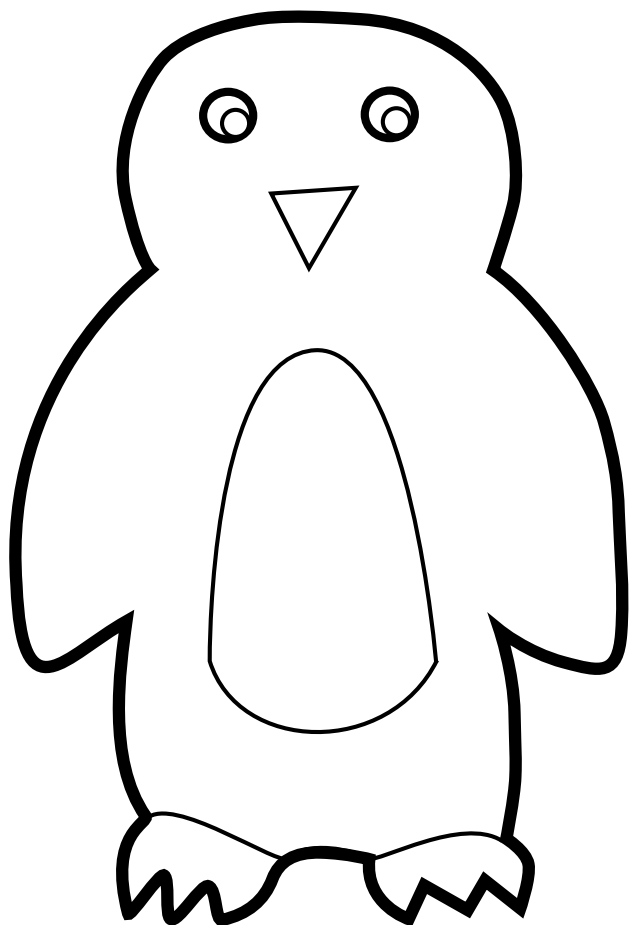
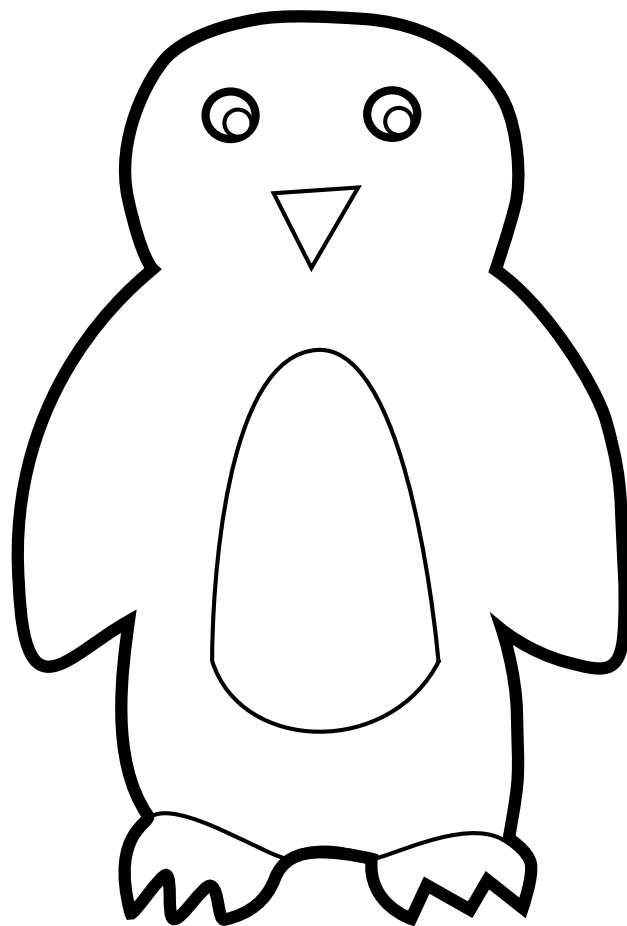
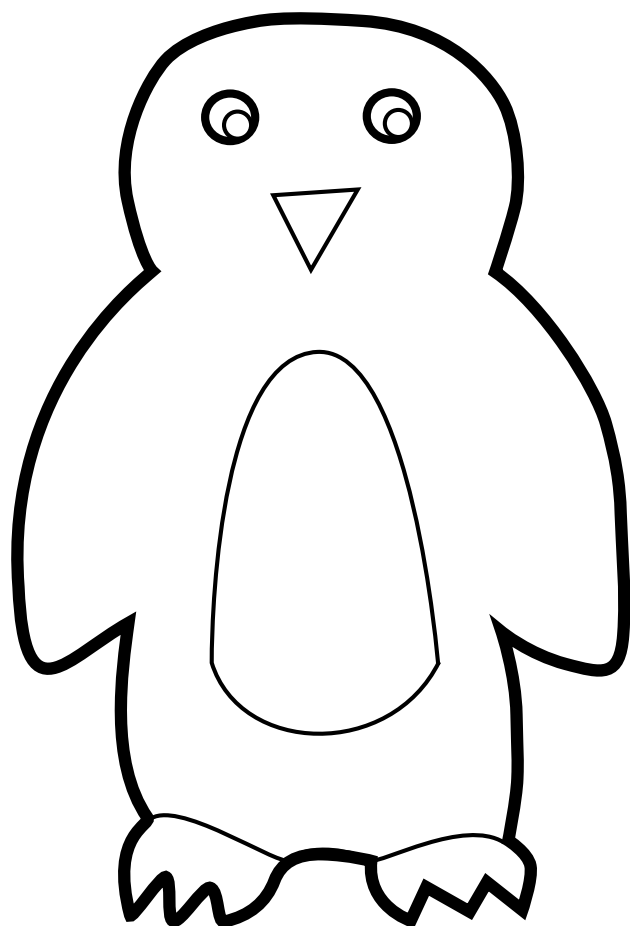
50

18

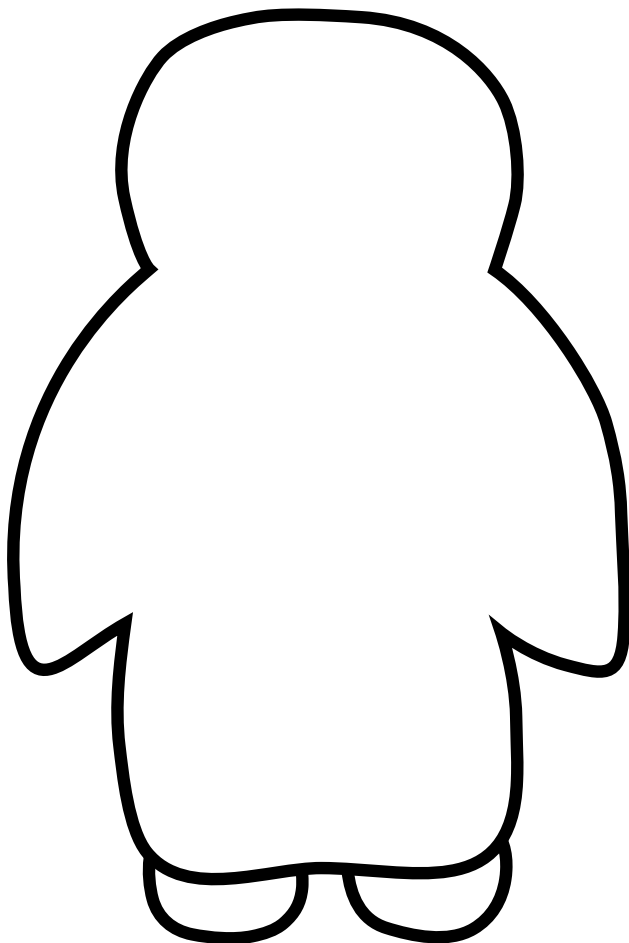
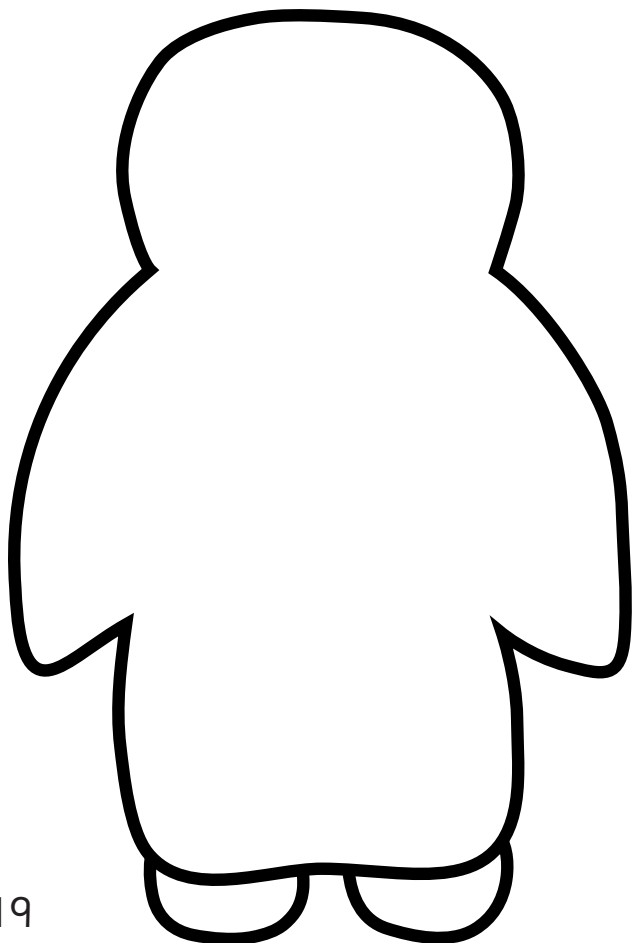
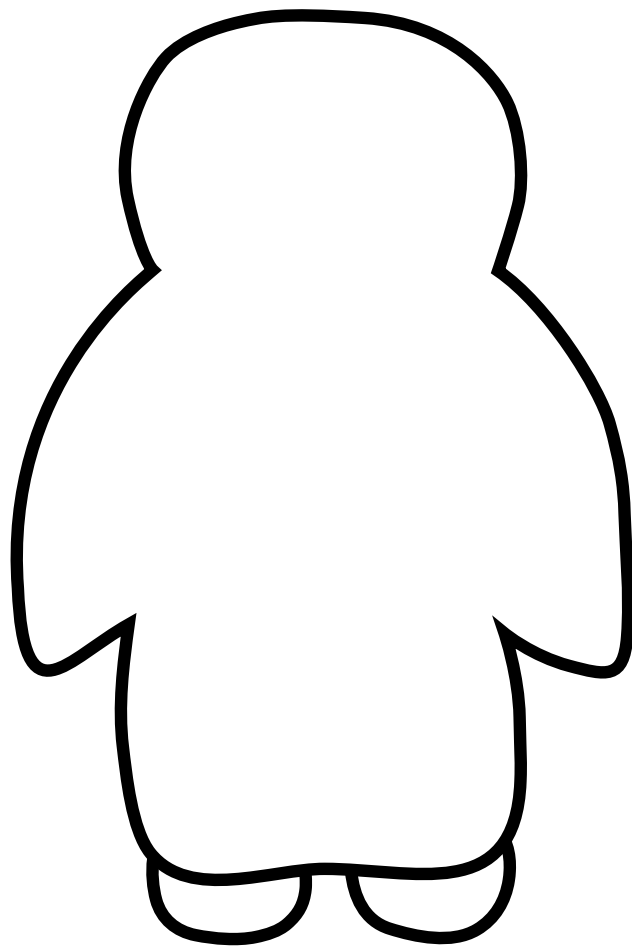
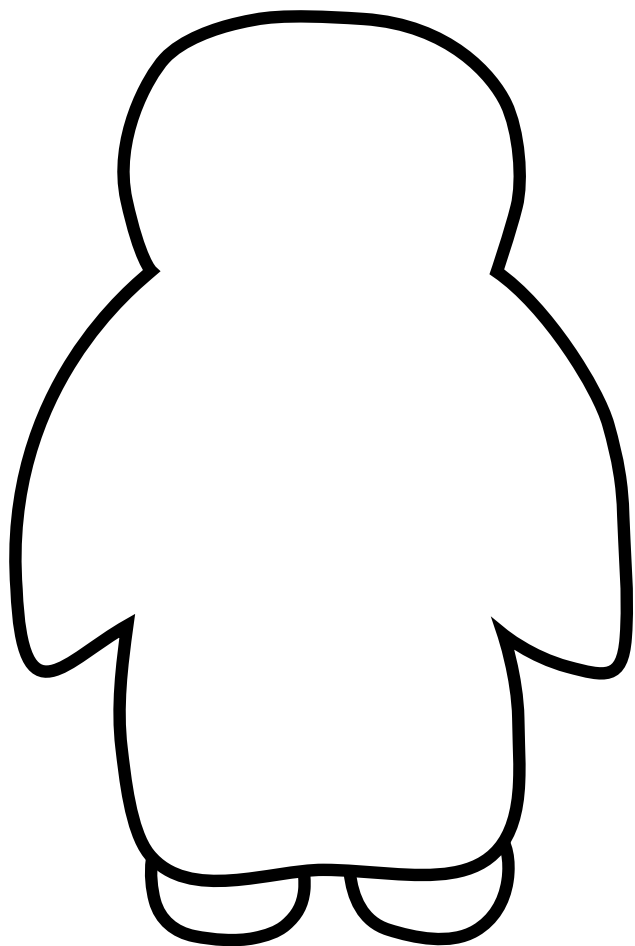
26

100

Penguin Parade (1)



Penguin Parade (2)



Double at Speed

How fast can you double these numbers?

$4 \longrightarrow \square$

$3 \longrightarrow \square$

$5 \longrightarrow \square$

$1 \longrightarrow \square$

$2 \longrightarrow \square$

$7 \longrightarrow \square$

$6 \longrightarrow \square$

$8 \longrightarrow \square$

$9 \longrightarrow \square$

$10 \longrightarrow \square$

$14 \longrightarrow \square$

$13 \longrightarrow \square$

$15 \longrightarrow \square$

$11 \longrightarrow \square$

$20 \longrightarrow \square$

$12 \longrightarrow \square$

$50 \longrightarrow \square$

$25 \longrightarrow \square$

Halve at Speed

How fast can you halve these numbers?

$6 \longrightarrow \square$

$2 \longrightarrow \square$

$14 \longrightarrow \square$

$16 \longrightarrow \square$

$8 \longrightarrow \square$

$10 \longrightarrow \square$

$4 \longrightarrow \square$

$12 \longrightarrow \square$

$18 \longrightarrow \square$

$28 \longrightarrow \square$

$30 \longrightarrow \square$

$40 \longrightarrow \square$

$20 \longrightarrow \square$

$26 \longrightarrow \square$

$22 \longrightarrow \square$

$100 \longrightarrow \square$

$24 \longrightarrow \square$

$50 \longrightarrow \square$

First to Fifth on the Bus

Draw link lines to show **first to fifth** on the bus.

**Penguin
Bus
Stop**

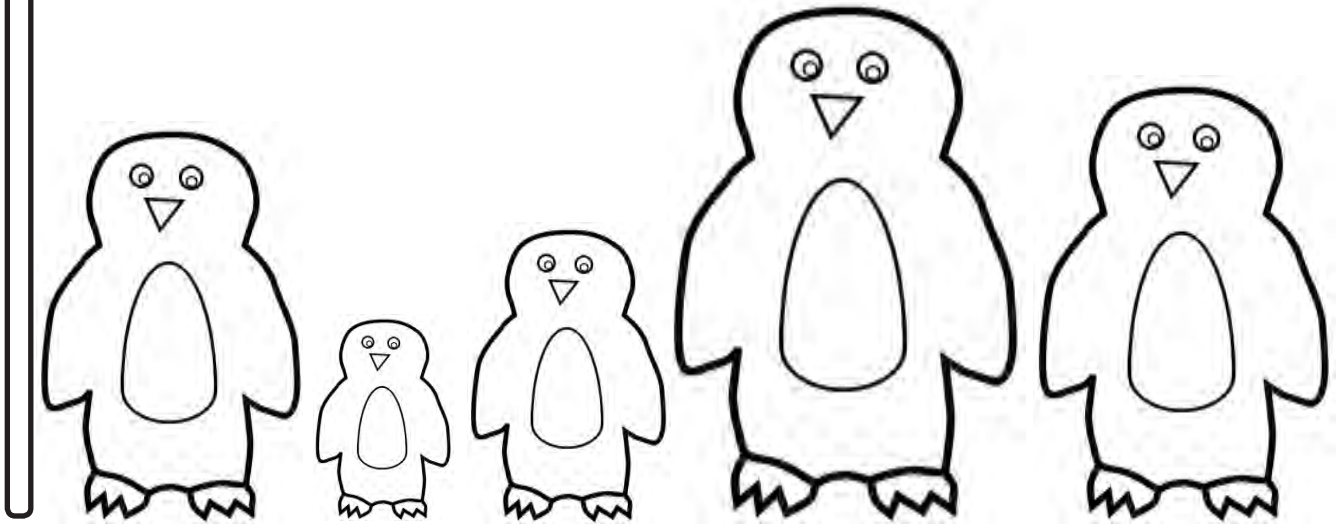
fourth

second

third

first

fifth



Draw link lines to show the order of size. Start with the largest.

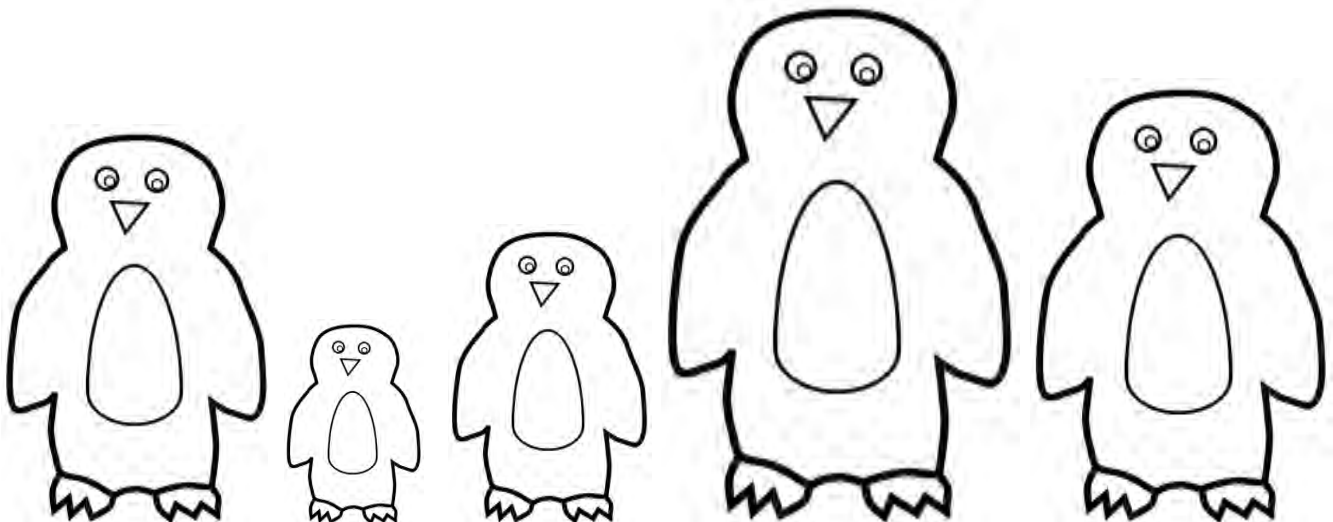
fourth

second

third

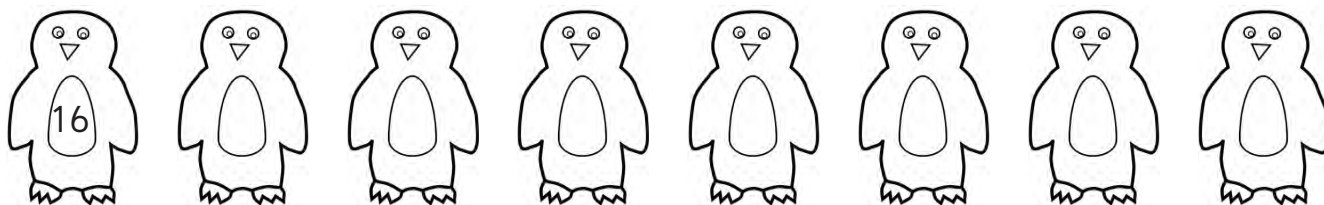
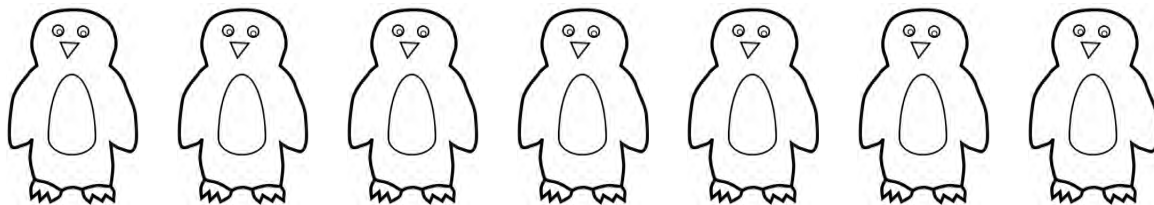
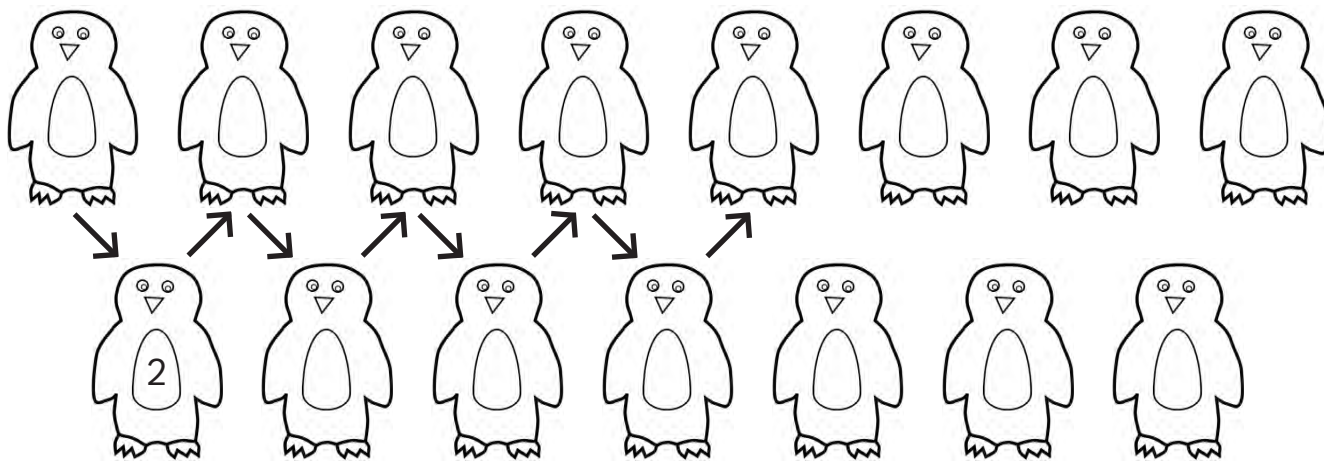
first

fifth



Penguin Number Line

Write in the number line 1 to 30 so you can see the **odd** and **even** numbers.



Write in the **even** numbers.



Write in the **odd** numbers.

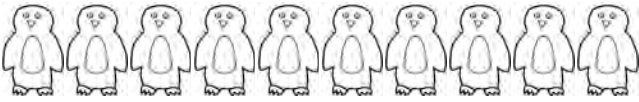


Counting on from 10



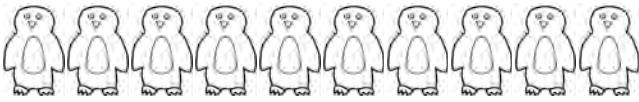
ten

one or unit.



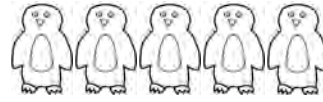
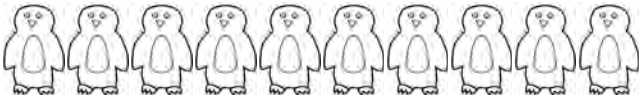
ten

ones or units.



ten

ones or units.



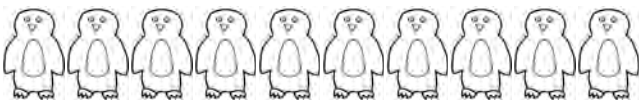
ten

ones or units.



ten

ones or units.



ten

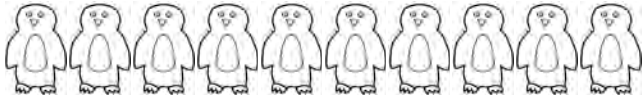
ones or units.

10 Sets of Ten

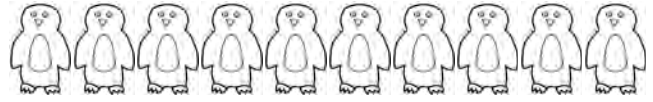
Count the penguins in tens. We say 10 or 1 ten. Complete.

double 50

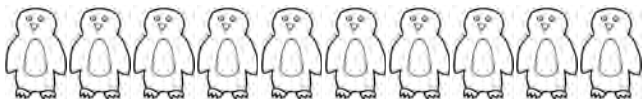
half 100



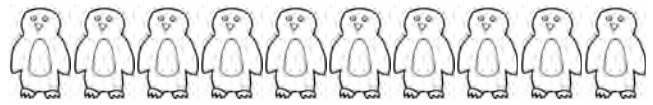
or ten



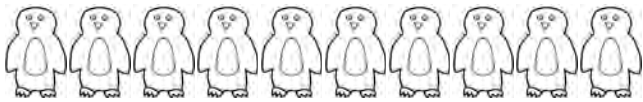
or tens



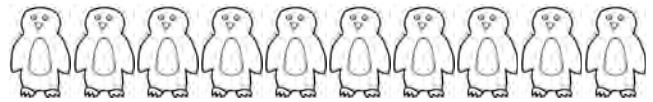
or tens



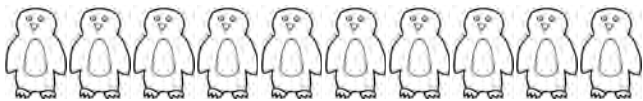
or tens



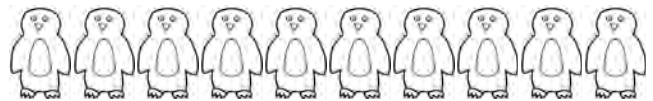
or tens



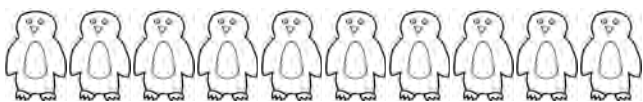
or tens



or tens



or tens



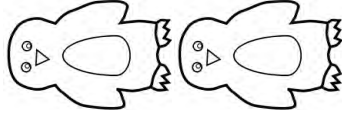
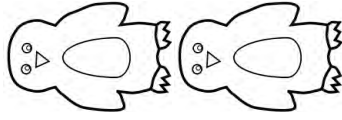
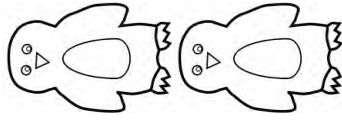
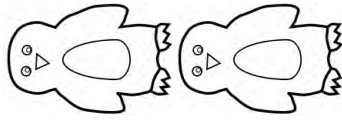
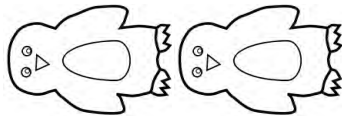
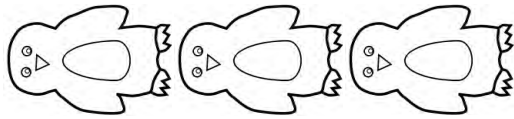
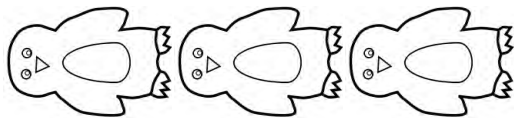
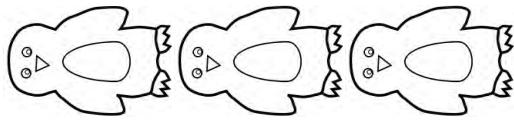
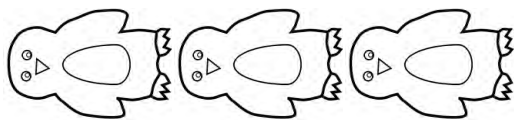
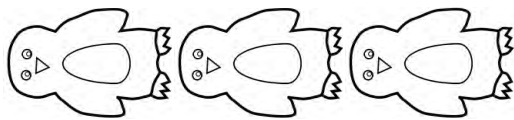
or tens



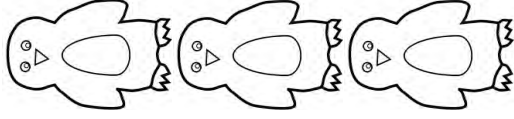
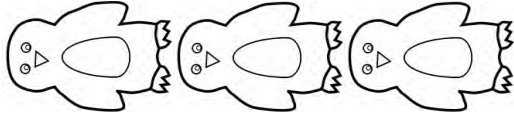
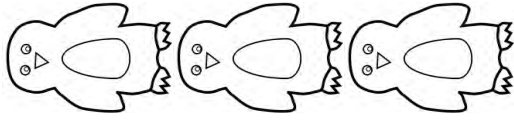
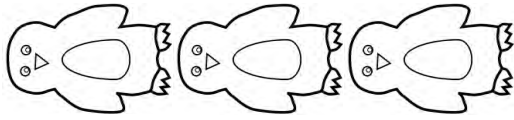
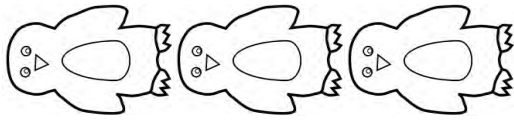
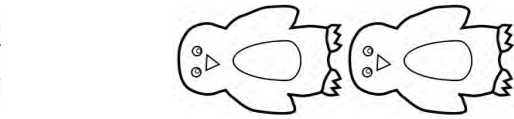
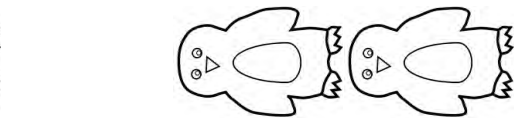
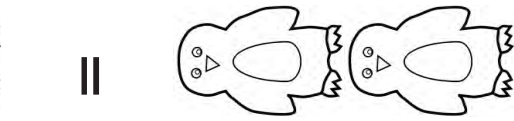
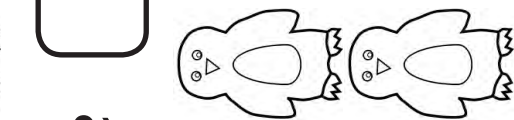
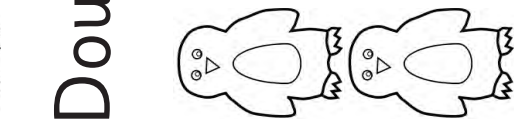
or tens

Penguin Parade 1 to 50

Write in the penguin number line from 1 to 50.



Half of 50 =

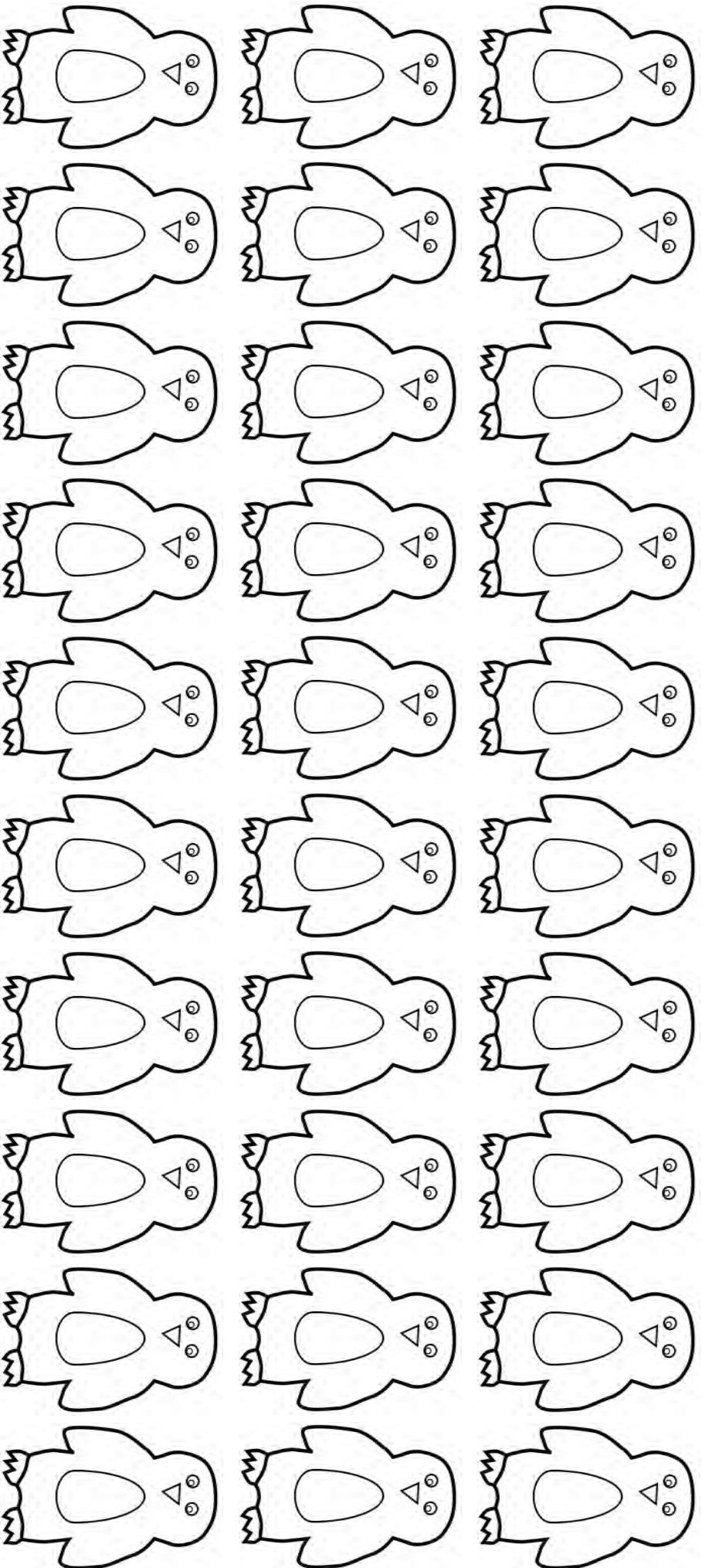


= 50

Double

Penguin Parade 1 to 30

Write in the number line 1 to 30. Colour half of them.



I coloured

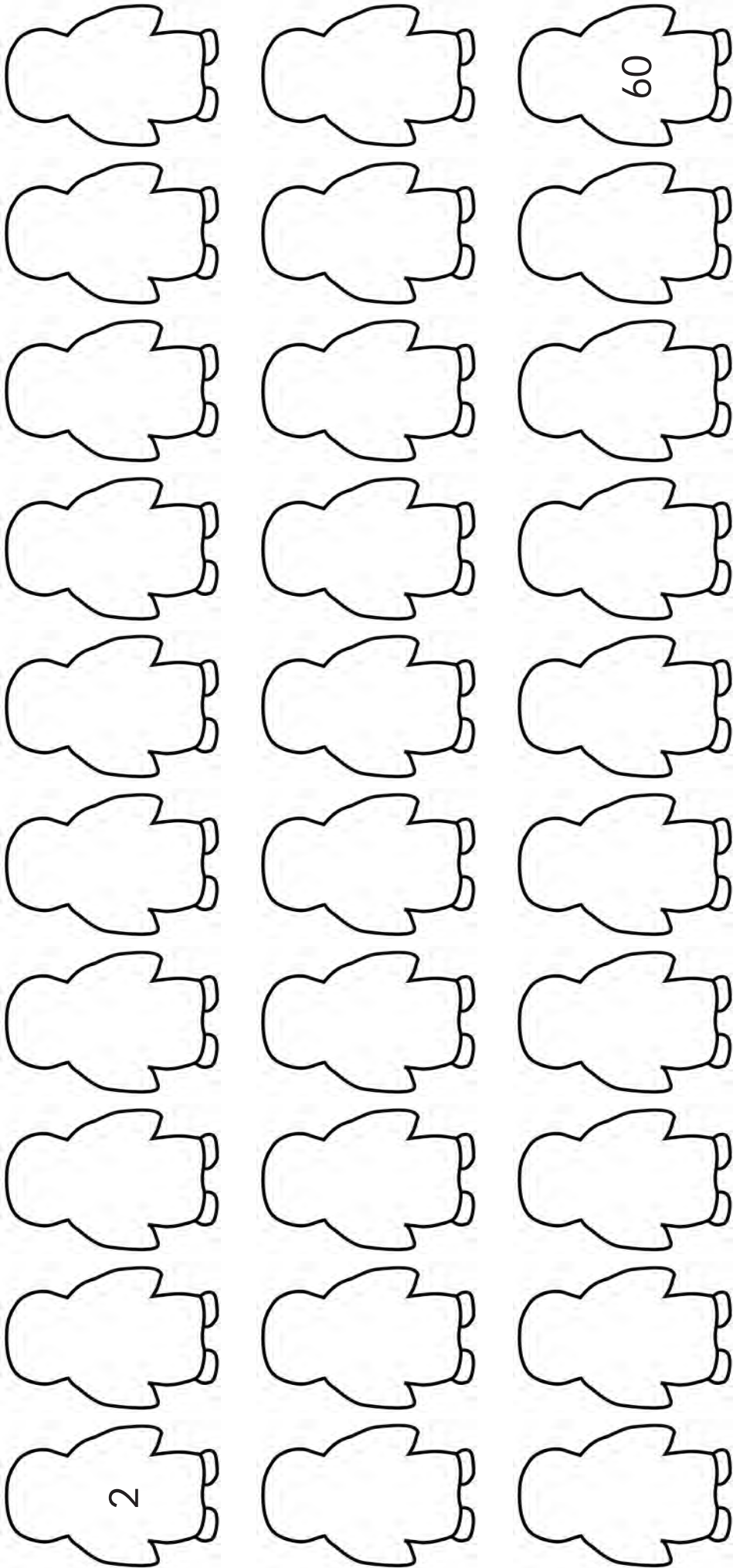
Half of thirty is

$\frac{1}{2}$

=

Penguin Doubles from 2 to 60

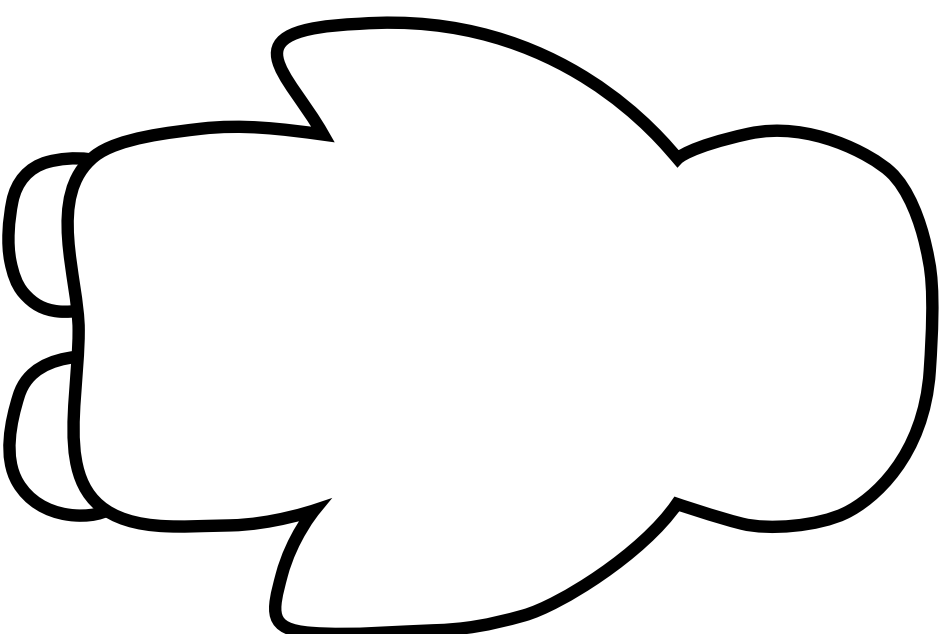
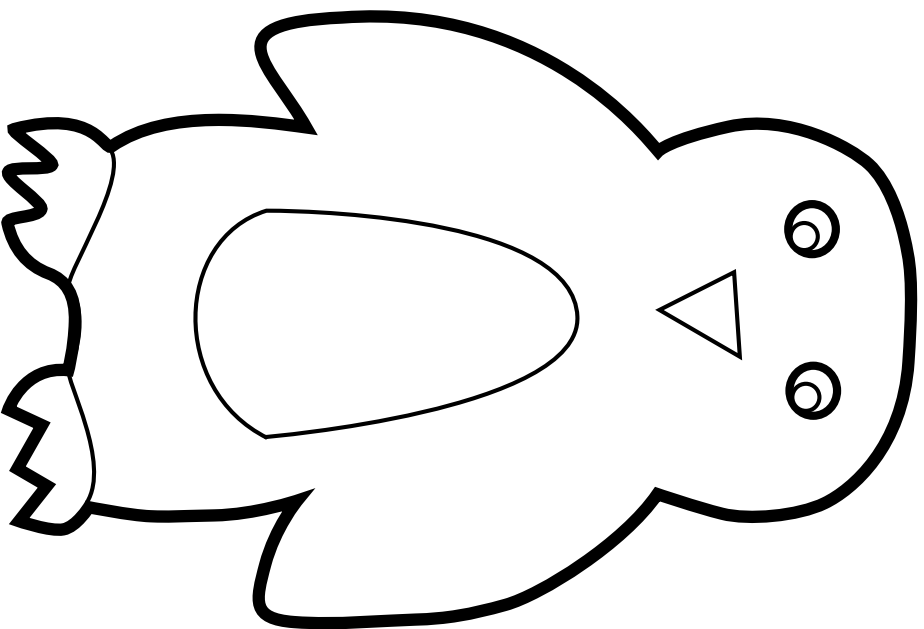
Write in the doubles number line from 2 to 60.



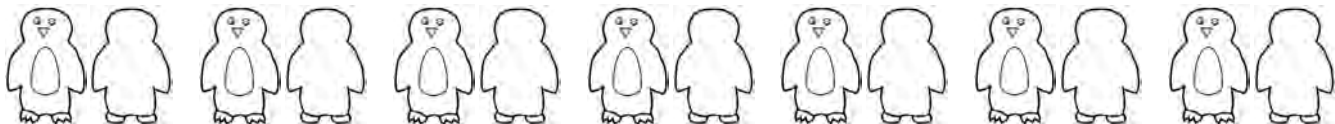
Penguin Halves and Doubles Master

Photocopy. Make your own set of Penguin Pick Ups.

29



29

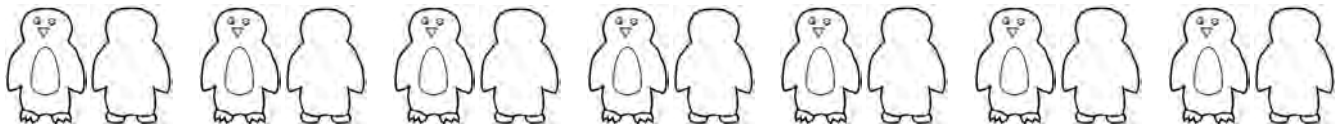


Well Done!

This is to certify that

has worked extremely hard
to instantly recall their
'halves' and 'doubles',
and now know them
off by heart.

Signed _____ Date _____



Teacher's Notes for Penguin Pick Ups

Contents and Description

- 18 double-sided penguins
- Teacher's notes
- Photocopiable booklet

18 double-sided penguin cards designed to teach the strategy of 'halving' and 'doubling'. On the reverse side is the 'double' of the number displayed on the front. The cards are therefore self correcting.

Suggested Uses

Penguin Pick Up Doubles

Cards can be placed on the table facing upwards. Children take it in turns to pick up a card but first they must say the number on the reverse side, which will be a double of the number on the front. If they are correct they are allowed to keep the card.

Penguin Pick Up Halves

Cards can be placed on the table facing downwards. Children take it in turns to pick up a card but first they must say the number on the reverse side that will be a half of the number on the front. If they are correct they are allowed to keep the card.

Flashcards – Mental Maths

The teacher or selected child holds the card facing the class but holding the reverse side so it cannot be seen. As the correct answer is given the card may be handed to the child or returned to the back of the pack. Answers may be written down if a silent session is required.

Penguin Parade Number Lines

Penguins 0 – 15 can be used as a number line and used as attractive wall displays or used as human number lines.

Even Number Penguin Parade

Even numbers are displayed on the reverse side of the penguin parade. The repeating pattern of 0, 2, 4, 6, 8 can be clearly seen.

Number Identification

Cards may be used for number identification flash cards. Also, emphasise the 'tricky teen' numbers and their names. Perhaps introduce them also as 1 ten 1, 1 ten 2, 1 ten 3 etc to assist the understanding of place value.

Washing Lines

The cards are an ideal size to hang on a washing line so that both sides of the cards can be seen.

The Order of Number

The cards can be used to teach the order of number. Can the children organise the cards from 0 – 15, but also can they place numbers in order if there are only numbers 5, 8, 11 and 13 etc.

Before and After

Using the human number line, washing line or wall display can the children identify the number before and the number after a stated number.

Missing Numbers

'Which is the hidden number?' Certain numbers can be covered on the wall display or hidden in a human number line or removed from the washing line. Can the children tell the missing number?