



MATHEMATICS



N.S. Yr. 2 P.49

Understand division

Equipment

Paper, pencil, ruler
Number lines, counters, buttons etc

MathSphere

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Concepts

Division can be understood in two ways:

1. Sharing equally

eg 8 bars of chocolate are shared between 2 people.

How many bars does each person get?

This concept is best introduced with practical apparatus - bowls of sweets, counters, buttons etc are ideal for sharing into equal groups, and then counting the number in the group.

2. Grouping, or repeated subtraction

In the same way that multiplication can be seen as repeated addition, so division can be seen as repeated subtraction.

Eg 8 divided by 2, or $8 \div 2$, can be seen as how many twos in eight?

Again, this is best done with apparatus at first and it is a slightly different process to sharing equally (where one item is given to each person in turn).

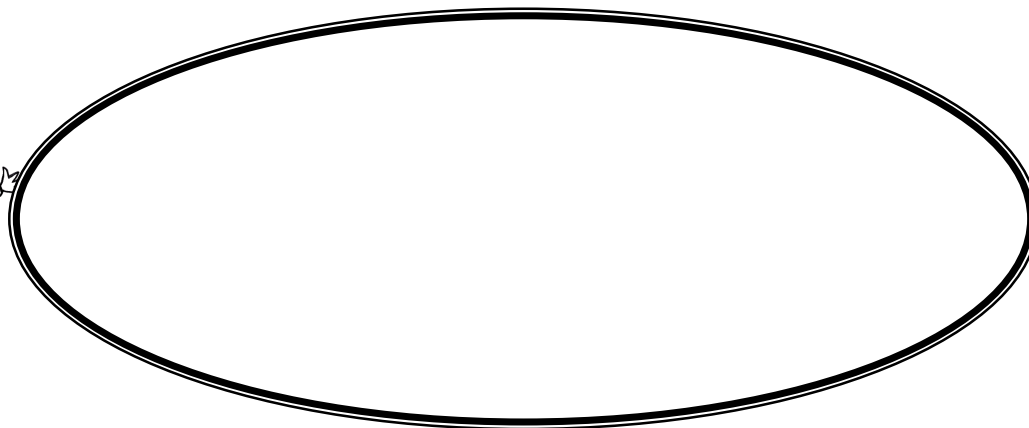
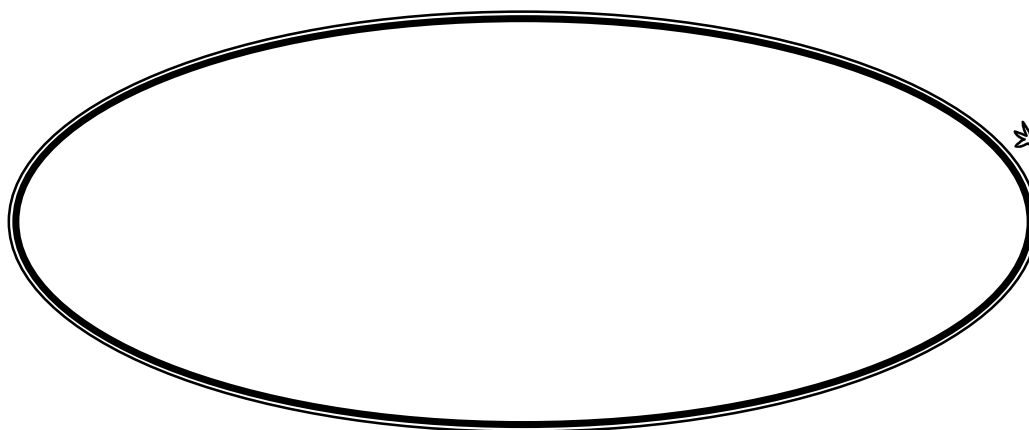
This can be answered by repeatedly taking two from the pile and then counting how many lots of two have been taken altogether.

The division symbol (\div) is introduced in year 2.

As children become more confident with both the above concepts they should become less reliant on apparatus and rely more on their knowledge of 2, 5 and 10 times tables.

Sharing equally

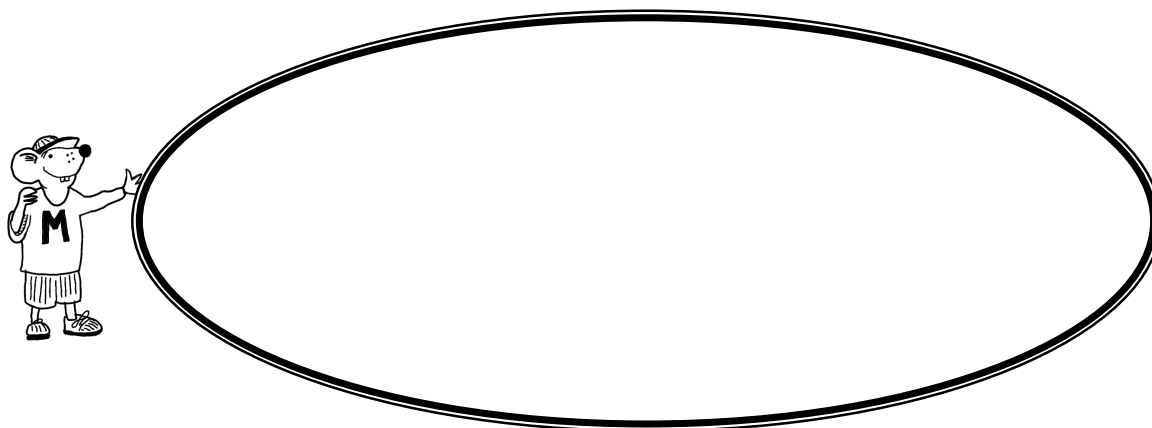
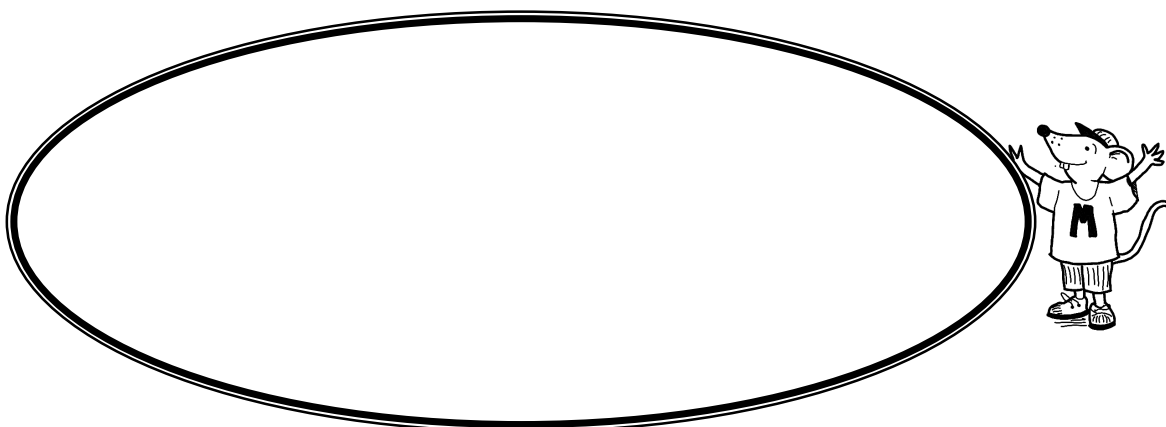
Share these sweets between Davey and Danny.



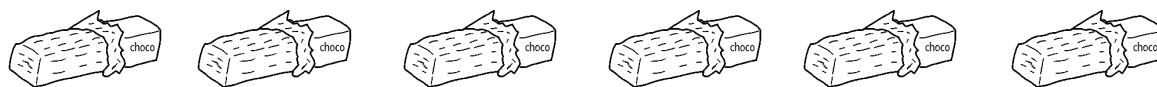
How many sweets do they each get?

Sharing equally

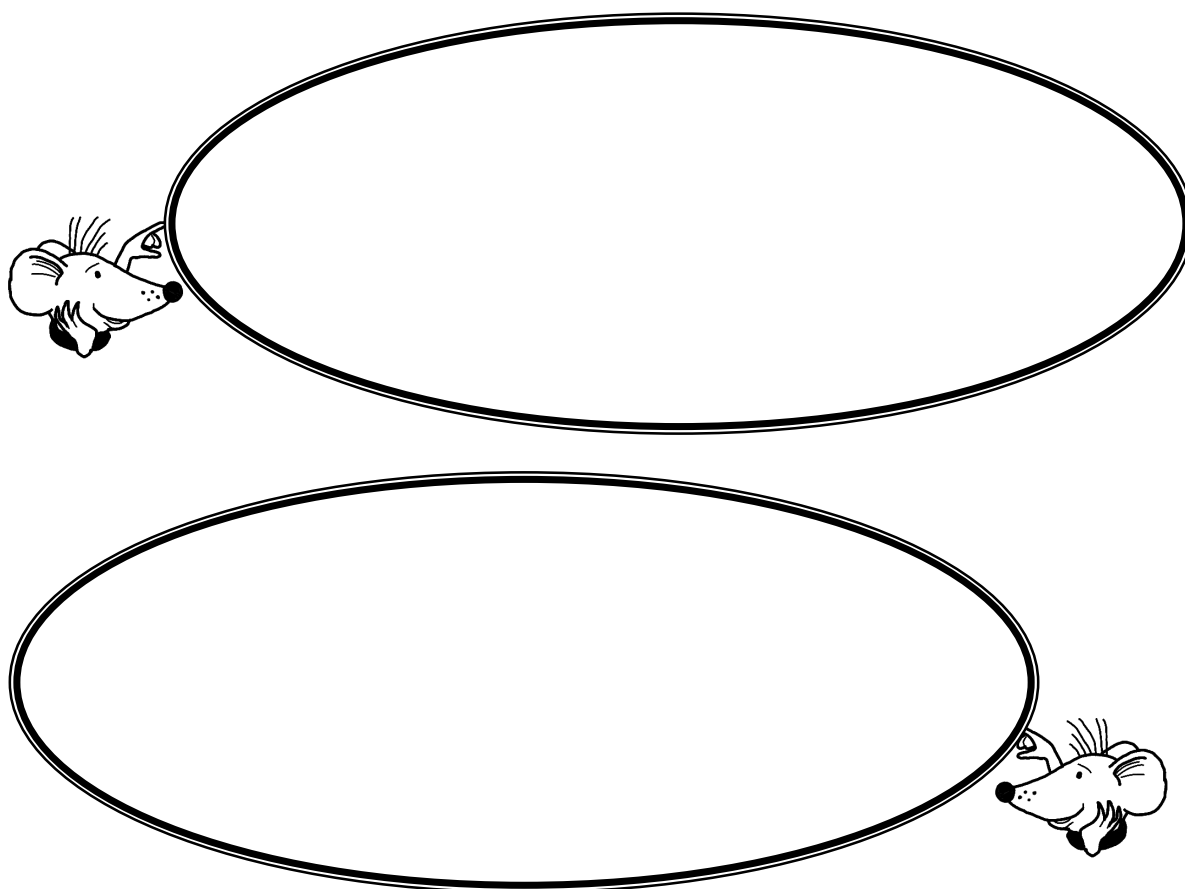
Share these sweets between Davey and Danny.



How many sweets do they each get?

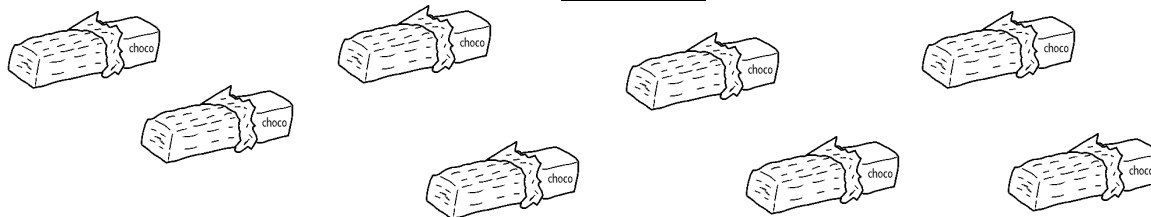
Sharing

Share these bars of chocolate between Ali and Gita.

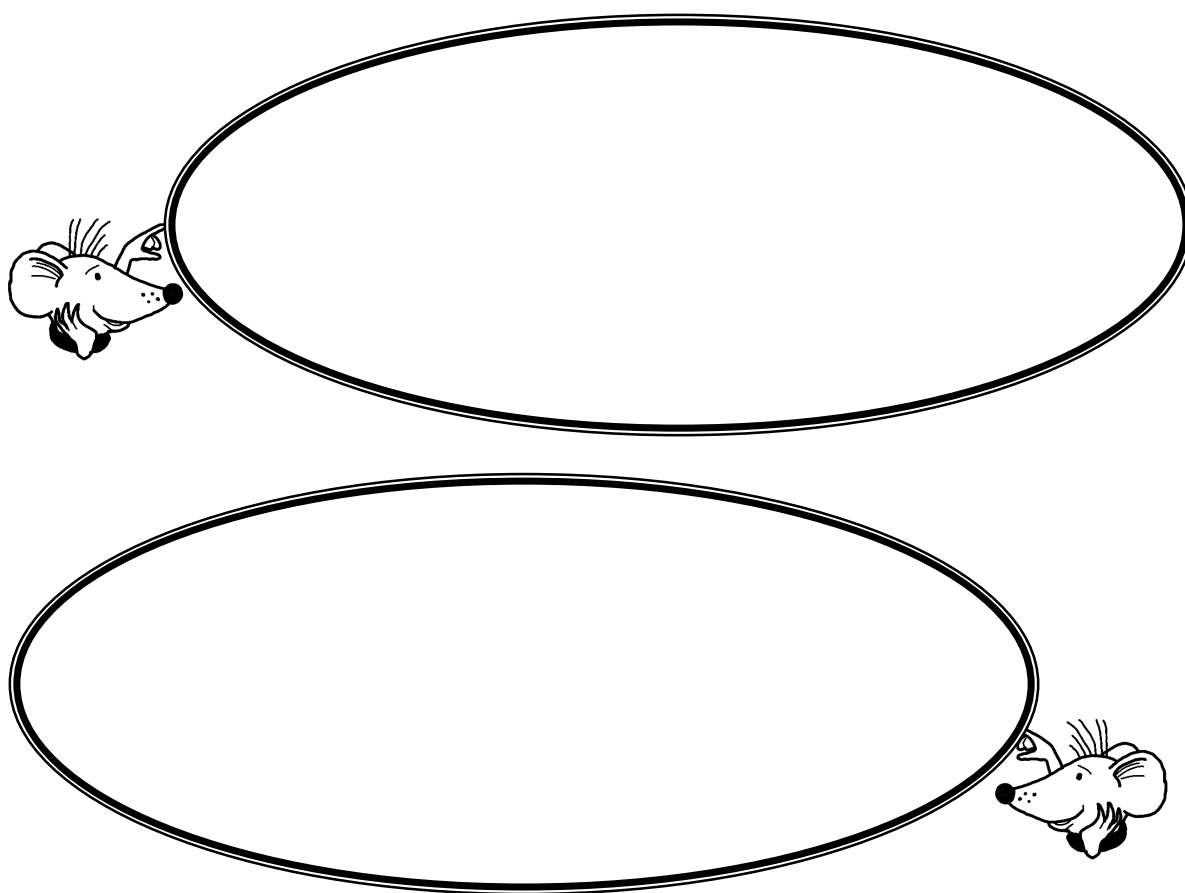


How many bars of chocolate do they each get?

Sharing



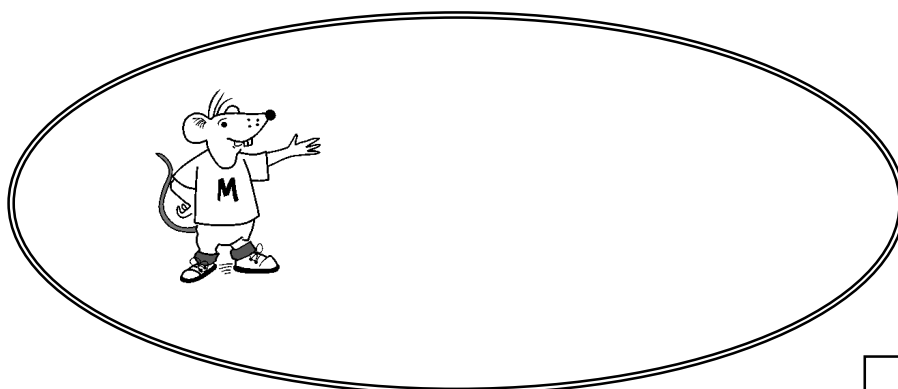
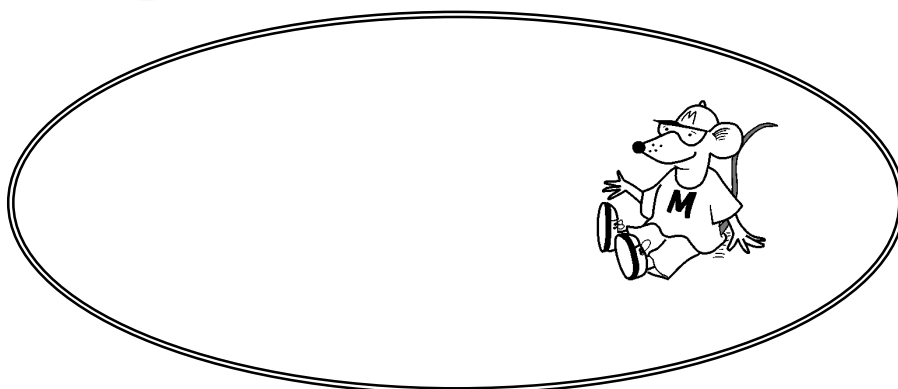
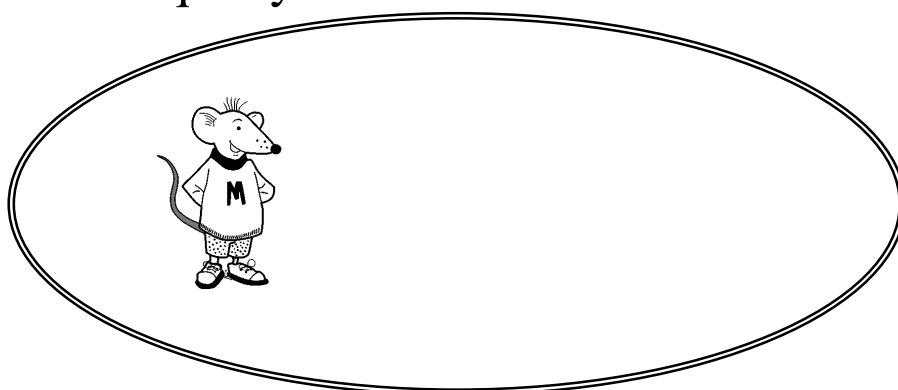
Share these bars of chocolate between Ali and Gita.



How many bars of chocolate do they each get?

Sharing

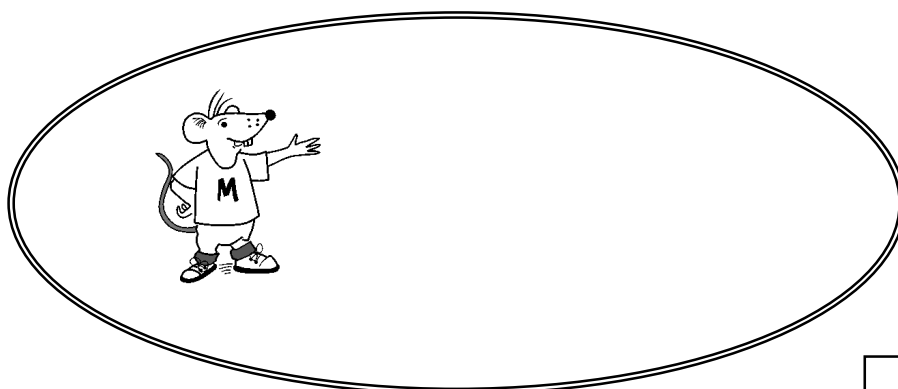
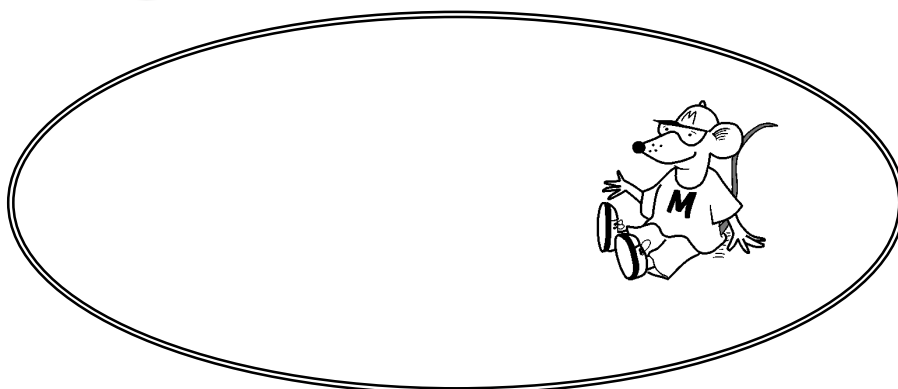
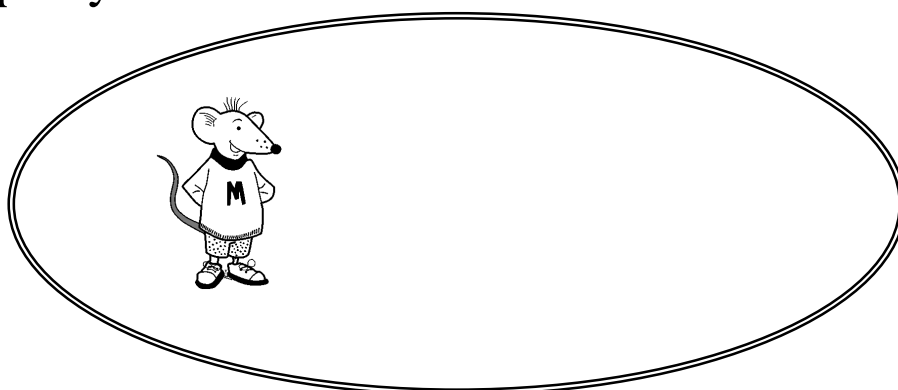
Multi, Subby and Divvy all like peaches. Share these peaches equally between them.



How many peaches do they each get?

Sharing

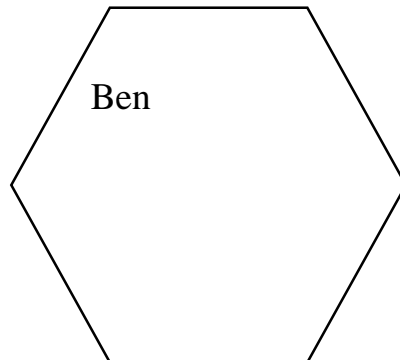
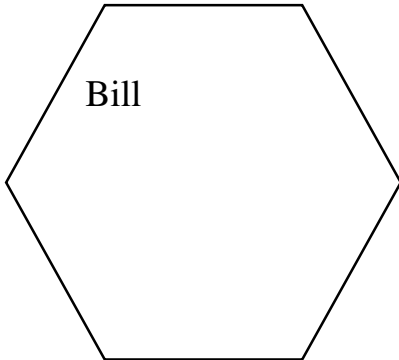
Multi, Subby and Divvy all like lollies. Share these lollies equally between them.



How many lollies do they each get?

Sharing

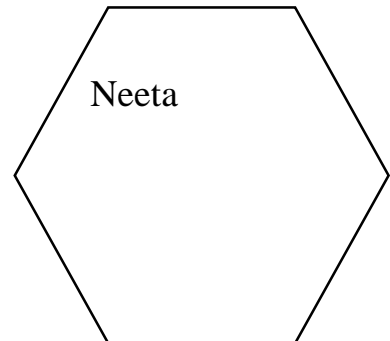
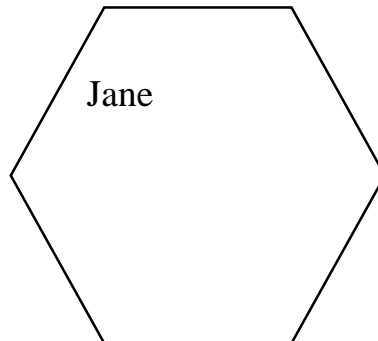
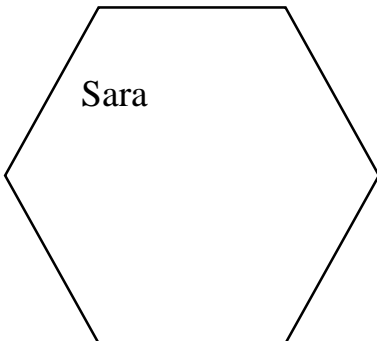
Share four counters equally between Bill and Ben.



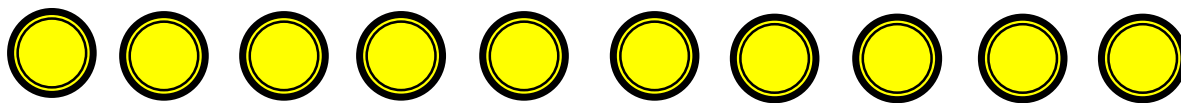
How many counters do they each get?



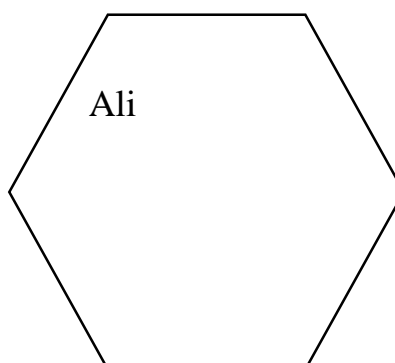
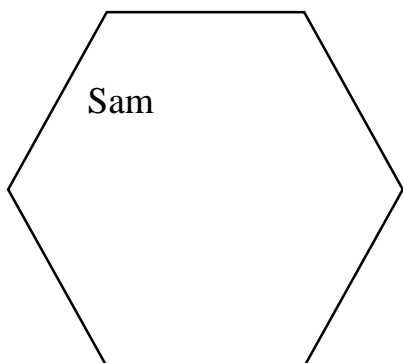
Share 6 counters between Sara, Jane and Neeta.



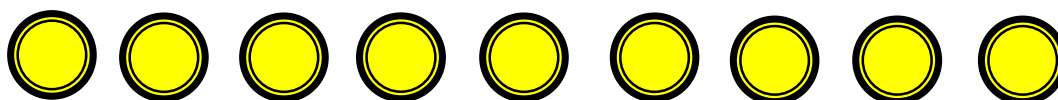
How many counters do they each get?

Sharing

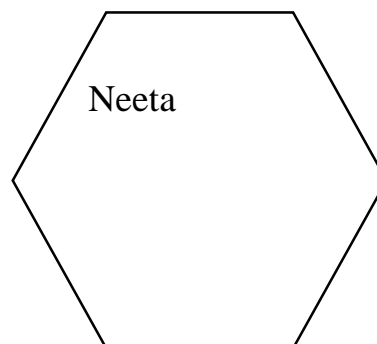
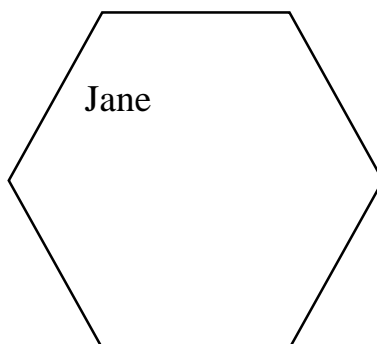
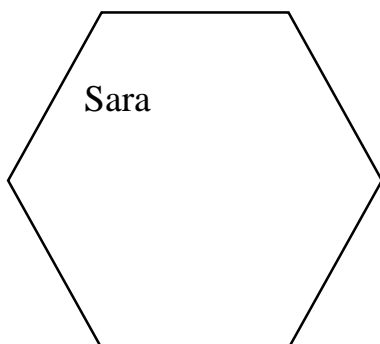
Share ten counters equally between Sam and Ali.



How many counters do they each get?



Share 9 counters between Sara, Jane and Neeta.



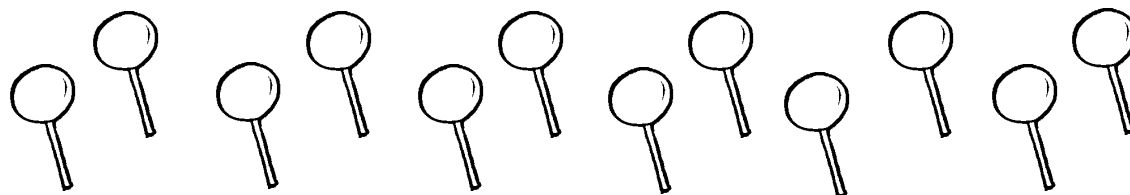
How many counters do they each get?

Sharing

Mum bought 8 ice creams for 4 children.
How many ice creams for each child?



Dad shared a bag of 10 apples between 5
children. How many apples did they each get?



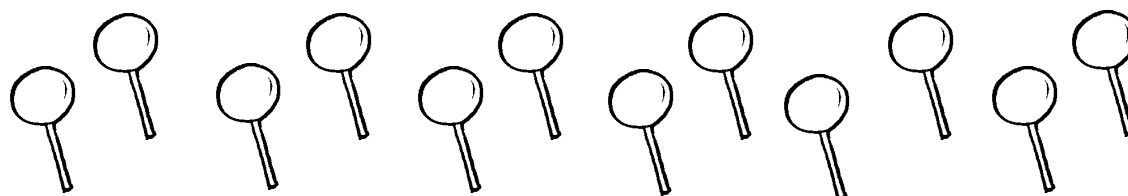
12 lollies were shared between 12 children.
How many lollies did they each get?

Sharing

Mum bought 9 ice creams for 3 children.
How many ice creams for each child?



Dad shared a bag of 8 apples between 4
children. How many apples did they each get?



12 lollies were shared between 3 children.
How many lollies did they each get?

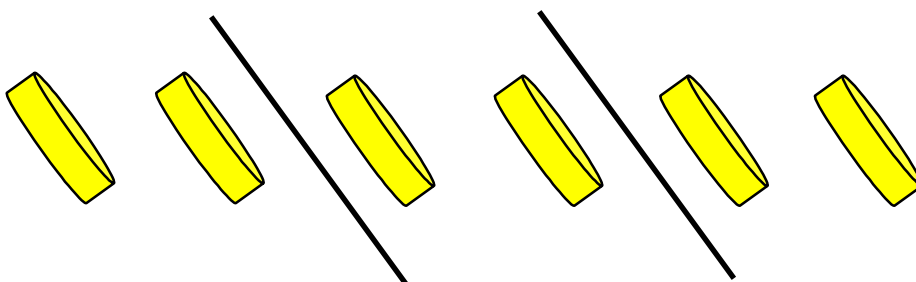
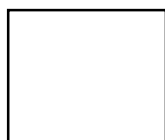
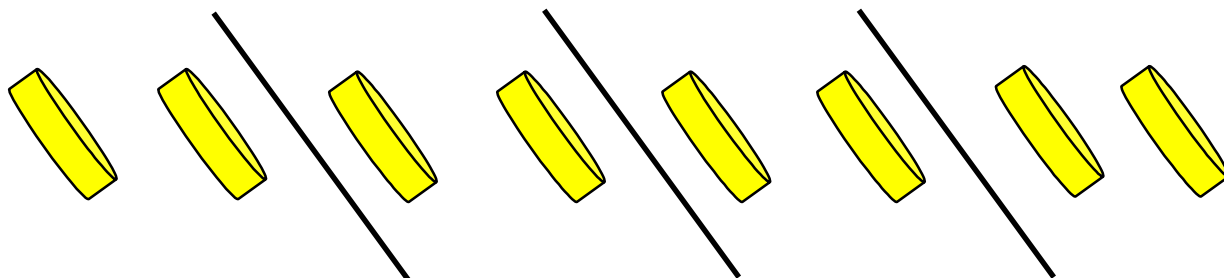
Division as grouping

Here's a new sign:



You see it written like this:

$$6 \div 2 =$$

 $6 \div 2 =$ this means how many 2s make 6**3 lots of two make 6** **$8 \div 2 =$ this means how many 2s make 8****lots of two make 8**

Division

1. $8 \div 2 =$ how many 2s in 8 $= 4$

2. $6 \div 2 =$ how many 2s in 6 $=$

3. $4 \div 2 =$ how many 2s in 4 $=$

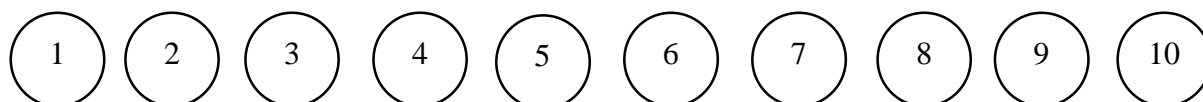
4. $6 \div 3 =$ how many 3s in 6 $=$

5. $8 \div 4 =$ how many 4s in 8 $=$

6. $10 \div 2 =$ how many 2s in 10 $=$

7. $9 \div 3 =$ how many 3s in 9 $=$

8. $10 \div 5 =$ how many 5s in 10 $=$



Division

1. $8 \div 2 =$ how many 2s in 8 $= 4$

2. $4 \div 2 =$ how many in 4 $=$

3. $6 \div 2 =$ how many 2s in $=$

4. $3 \div 3 =$ how many in 3 $=$

5. $8 \div 4 =$ how many 4s in $=$

6. $20 \div 10 =$ how many 10s in 20 $=$

7. $9 \div 9 =$ how many in 9 $=$

8. $20 \div 5 =$ how many 5s in 20 $=$

Division by grouping**1. How many lots of 2 make 10?**

* * * * *

2. How many lots of 5 make 20?* * * * *
* * * * ***3. How many lots of 4 make 20?*** * * * *
* * * * ***4. How many lots of 5 make 15?**

* * * * *

5. How many lots of 3 make 15?

* * * * *

How did you get on with
these?
OK, I hope!



Division by grouping**1. How many lots of 2 make 16?**

* * * * *

2. How many lots of 5 make 25?

* * * * *

* * * * *

3. How many lots of 4 make 12?

* * * * *

4. How many lots of 5 make 10?

* * * * *

5. How many lots of 3 make 12?

* * * * *

How did you get on with these?
OK, I hope!



Division by grouping**1. How many lots of 4 make 16?**

* * * * *

* * * * *

2. How many lots of 3 make 15?

* * * * *

* * * *

3. How many lots of 5 make 30?

* * * * *

* * * * *

* * * * *

4. How many lots of 3 make 9?

* * * * *

5. How many lots of 10 make 40?

* * * * *

* * * * *

* * * * *

* * * * *

Division by grouping**1. How many lots of 4 make 24?**

* * * * *
* * * * *
* * * * *

2. How many lots of 2 make 20?

* * * * *
* * * * *

3. How many lots of 5 make 40?

* * * * *
* * * * *
* * * * *
* * * * *

4. How many lots of 3 make 12?

* * * * * * * * * *

5. How many lots of 10 make 20?

* * * * *
* * * * *

Division using words

1. Share 8 sweets between two children.
2. Share 12 sweets between three children.
3. Divide 10 by 5
4. Divide 12 by 2
5. How many 5s make 20 ?
6. How many 10s make 100 ?
7. How many two pound coins do you get for £10 ?
8. How many 2p coins do you get for 10p ?
9. How many 5 cm lengths can you cut
from 20 cm of ribbon ?
10. How many 4 cm lengths can you cut
from 20 cm of ribbon ?

Division using words

1. Share 10 sweets between two children.
2. Share 15 sweets between three children.
3. Divide 20 by 5
4. Divide 18 by 2
5. How many 5s make 30 ?
6. How many 10s make 50 ?
7. How many two pound coins do you get for £8 ?
8. How many 2p coins do you get for 20p ?
9. How many 5 cm lengths can you cut from 10 cm of ribbon ?
10. How many 4 cm lengths can you cut from 40 cm of ribbon ?

Division

Remember this sign?

\div

$6 \div 2$ means how many twos make 6
or share 6 into 2 equal parts.

Try these:

1. $8 \div 2 =$

2. $10 \div 5 =$

3. $12 \div 2 =$

4. $20 \div 5 =$

5. $30 \div 10 =$

6. $20 \div 5 =$

7. $14 \div$ $= 2$

8. $20 \div$ $= 10$

9. $15 \div$ $= 3$

10. $40 \div$ $= 4$

Division

Remember this sign?

 \div

$8 \div 2$ means how many twos make 8
or share 8 into 2 equal parts.

Try these:

1. $10 \div 2 =$

2. $15 \div 5 =$

3. $14 \div 2 =$

4. $30 \div 5 =$

5. $40 \div 10 =$

6. $35 \div 5 =$

7. $12 \div$ $= 2$

8. $10 \div$ $= 5$

9. $30 \div$ $= 3$

10. $50 \div$ $= 5$

Answers**Page 3**

3 sweets each

Page 4

5 sweets each

Page 5

3 bars of chocolate each

Page 6

4 bars of chocolate each

Page 7

3 peaches each

Page 8

2 lollies each

Page 9

Bill and Ben have 2 counters each. Sara, Jane and Neeta have 2 counters each.

Page 10

Sam and Ali have 5 counters each. Sara, Jane and Neeta have 3 counters each.

Page 11

2 ice creams. 2 apples. 1 lolly.

Page 12

3 ice creams. 2 apples. 4 lollies.

Page 13

4 lots of 2 make 8

Page 14

1. 4 2. 3 3. 2 4. 2 5. 2 6. 5 7. 3 8. 2

Page 15

2. 2s, 2 3. 6, 3 4. 3s 1 5. 8, 2 6. 2 7. 9s 1 8. 4

Answers**Page 16****1. 5 2. 4 3. 5 4. 3 5. 5****Page 17****1. 8 2. 5 3. 3 4. 2 5. 4****Page 18****1. 4 2. 5 3. 6 4. 3 5. 4****Page 19****1. 6 2. 10 3. 8 4. 4 5. 2****Page 20****1. 4 2. 4 3. 2 4. 6 5. 4 6. 10 7. 5 8. 5 9. 4 10. 5****Page 21****1. 5 2. 5 3. 4 4. 9 5. 6 6. 5 7. 4 8. 10 9. 2 10. 10****Page 22****1. 4 2. 2 3. 6 4. 4 5. 3 6. 4 7. 7 8. 2 9. 5 10. 10****Page 23****1. 5 2. 3 3. 7 4. 6 5. 4 6. 7 7. 6 8. 2 9. 10 10. 10**