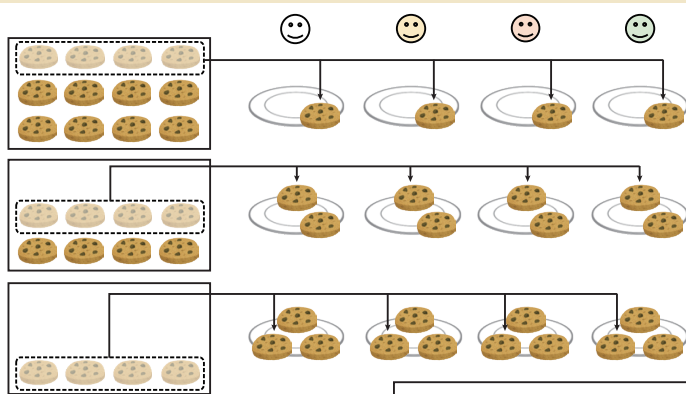


4 - 1

Division

How Many for Each Person ?

Example 1 There are 12 biscuits. If they are divided evenly among 4 people, how many biscuits will 1 person get? Make a math sentence.



When 12 biscuits are divided evenly among 4 people, 1 person gets 3 biscuits.

This is written as the math sentence below:

$$12 \div 4 = 3$$

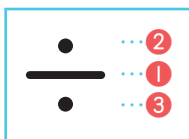
Total number of objects

Number of people

Number of objects for 1 person

(Twelve divided by four equals three)

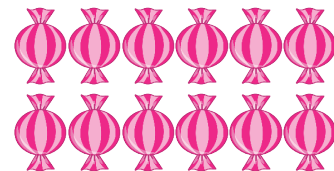
1 Write the **division** symbol.



2 Read the following questions and write the math sentences.

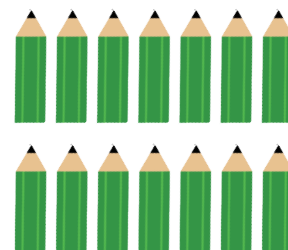
1 There are 12 pieces of candy. If 3 children share them equally, how many pieces of candy will each child get?

Math sentence



2 There are 14 pencils. If 2 children divide them evenly, how many pencils will each child get?

Math sentence



Example 2 Find the answer for the following division problem.

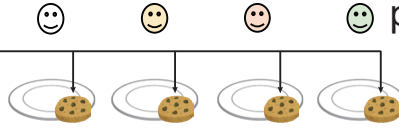
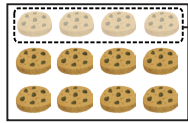
$$12 \div 4 = \boxed{3}$$

Number of objects for 1 person

Total number of objects

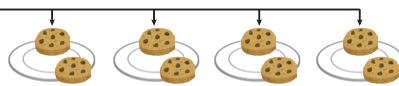
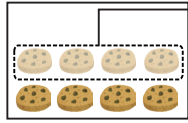
Number of people

When each person gets,



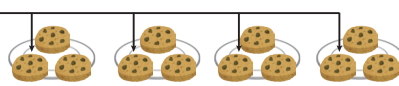
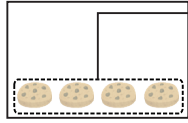
1 biscuit

$$\times 4 = 4$$



2 biscuit

$$\times 4 = 8$$



3 biscuit

$$\times 4 = 12$$

The answer to $12 \div 4$ is the number that goes in the .

$$\boxed{} \times 4 = 12$$

You can use the multiplication facts of 4.

3 Read the following questions and write the math sentences. Then find the answers.

1 There are 24 pieces of candy. If 6 children share them equally, how many pieces of candy will each child get?

Math sentence

Answer pieces of candy

2 There are 32 pencils. If 4 children divide them evenly, how many pencils will each child get?

Math sentence

Answer pencils

3 There are 15 oranges. If 5 children share them equally, how many oranges will each child get?

Math sentence

Answer oranges

4 - 2

Division

How Many People ?

Example There are 12 chocolates. If we give 4 chocolates to each child, how many children can share the chocolates? Make a math sentence and find the answer.

If 12 chocolates are divided so each child gets 4, the chocolates can be shared among 3 children.

Even in this case, it can be written with the following division math sentence.

$$12 \div 4 = 3$$

Total number of objects Number of people
Number of objects for 1 person

Answer children

Read the following questions and write the math sentences. Then find the answer.

- 1 There are 20 flowers. If we give 4 flowers to each person, how many people can share the flowers?

Math sentence Answer people

- 2 There are 36 balls. If we put 9 balls in each basket, how many baskets do we need?

Math sentence Answer baskets

- 3 There is a ribbon that is 24 cm long. We want to cut an 8 cm long pieces of ribbon. How many pieces of ribbon can we cut?

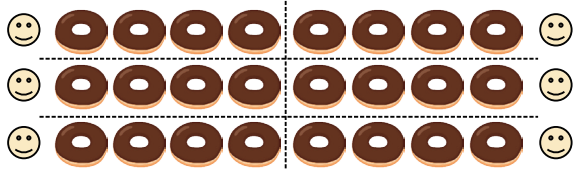
Math sentence Answer pieces

4 - 3

Division

Making Division Problems

Example Look at the following picture, math sentence and answer. Then choose the most appropriate problem sentence.



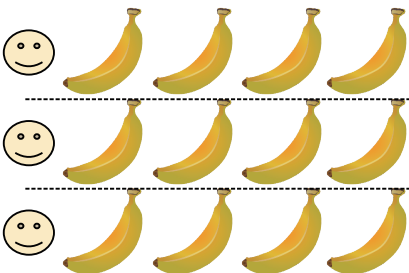
Math sentence $24 \div 6 = 4$

Answer 4 donuts

- (a) There are 24 donuts. If we give 4 donuts to each child, how many children can share the donuts?
- (b) There are 24 donuts. If 6 children share the donuts equally, how many donuts will each child get?
- (c) There are 6 children. If each child has 4 donuts, how many donuts are there altogether?

Look at the following picture, math sentence and answer. Then choose the most appropriate problem sentence.

1



Math sentence $12 \div 3 = 4$

Answer 4 bananas

- (a) There are 12 bananas. If 3 people share them equally, how many bananas can each person get?
- (b) There are 12 bananas. If we give 4 bananas to each person, how many people can get the bananas?
- (c) There are 3 people. If each person has 4 bananas, how many bananas are there altogether?

2



Math sentence $18 \div 3 = 6$

Answer 6 people

- (a) There are 6 packages, each of which has 3 cans of juice. How many cans of juice are there altogether?
- (b) There are 18 cans of juice. If 6 people share them equally, how many cans of juice each person can get?
- (c) There are 18 cans of juice. If we give 3 cans to each person, how many people can receive them?

4 - 4

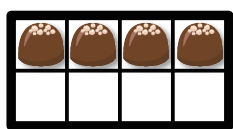
Division

Divide 0 and Divide by 1

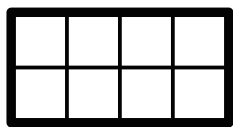
Example 1 Some chocolates in a box will be shared equally among 4 children. How many chocolates does each child get in the following situations?



1 When there are 8 chocolates
 $8 \div 4 = 2$ Answer **2** chocolates



2 When there are 4 chocolates
 $4 \div 4 = 1$ Answer **1** chocolate

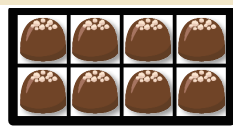


3 When there is no chocolate in the box
 $0 \div 4 = 0$ Answer **0** chocolate

1 Calculate the following division problems.

- 1** $0 \div 2 = \square$ **2** $0 \div 4 = \square$ **3** $0 \div 8 = \square$
4 $0 \div 5 = \square$ **5** $0 \div 3 = \square$ **6** $0 \div 7 = \square$

Example 2 There are 8 chocolates. If there is only 1 person here, how many chocolates does this person get?



$8 \div 1 = 8$ Answer **8** chocolates

The answer to $8 \div 1$ is the number that goes in the \square . $\square \times 1 = 8$



2 Calculate the following division problems.

- 1** $7 \div 1 = \square$ **2** $9 \div 1 = \square$ **3** $3 \div 1 = \square$
4 $5 \div 1 = \square$ **5** $4 \div 1 = \square$ **6** $6 \div 1 = \square$

4 - 5

Division

Calculations for Finding Times as Much

Example The length of a pencil is 18 cm. The length of an eraser is 6 cm. How many times as long is the pencil than the eraser?

Pencil: 18 cm

Eraser: 6 cm

To find how many times as much, you can use division.

Math sentence: $18 \div 6 = 3$

Answer: 3 times

Answer the following questions.

1 There is a red ribbon and a blue ribbon. The length of the red ribbon is 36 cm. The length of the blue ribbon is 9 cm. How many times as long is the red ribbon as the blue ribbon?

Math sentence: Answer: times

2 There are 21 cans of orange juice and 7 cans of grape juice. How many times as many cans of orange juice are there as cans of grape juice?

Math sentence: Answer: times

3 There are 42 pieces of coloured paper and 6 pieces of white paper. How many times as many coloured paper are there as white paper?

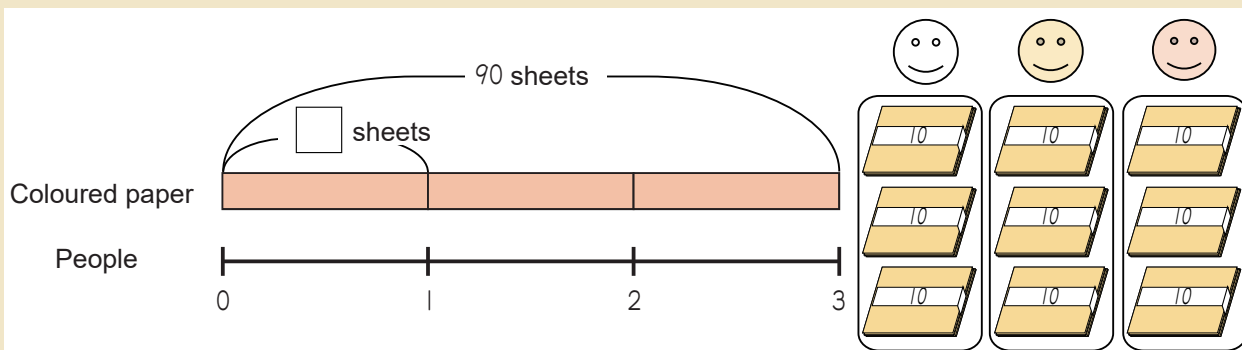
Math sentence: Answer: times

4 - 6

Division

Divide a Large Number (1)

Example 90 sheets of coloured paper are divided evenly among 3 people. How many sheets of coloured paper will each person get?



Each bundle has 10 sheets of coloured paper. We are dividing 9 bundles among 3 people. Therefore, you can use $9 \div 3$.

$$9 \div 3 = 3$$

$$90 \div 3 = 30$$



Math sentence

$$90 \div 3 = 30$$

Answer

30

sheets of coloured paper

Answer the following questions.

- 1 60 sheets of paper are divided evenly among 3 people. How many sheets of paper will each person get?

Math sentence

Answer

sheets of paper

- 2 50 cupcakes are divided evenly among 5 children. How many cupcakes will each child get?

Math sentence

Answer

cupcakes

- 3 60 pencils are divided evenly among 2 students. How many pencils will each student get?

Math sentence

Answer

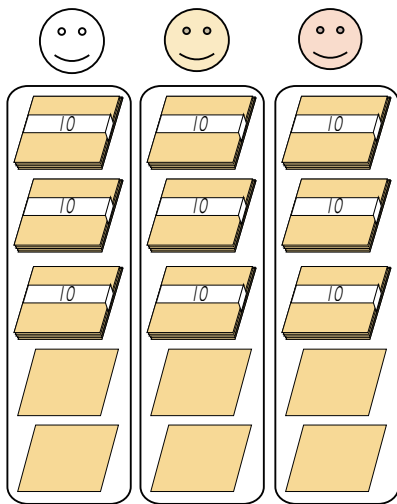
pencils

4 - 7

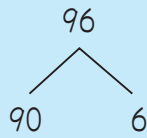
Division

Divide a Large Number (2)

Example 96 sheets of coloured paper are divided evenly among 3 people. How many sheets of coloured paper will each person get?



We are dividing bundles of 10 sheets and individual sheets. Therefore, the following calculation way can be used.



$$\begin{array}{r} 90 \div 3 = 30 \\ 6 \div 3 = 2 \\ \hline \text{Altogether } 32 \end{array}$$



Math sentence

$$96 \div 3 = 32$$

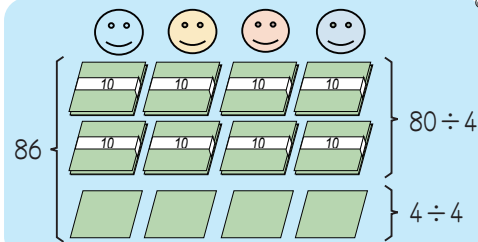
Answer

32

sheets of coloured paper

Answer the following questions.

- 1 84 sheets of paper are divided evenly among 4 people. How many sheets of paper will each person get?



Math sentence

Answer

sheets of paper

- 2 36 chocolates are divided evenly among 3 children. How many chocolates will each child get?

Math sentence

Answer

chocolates

- 3 68 coloured pencils are divided evenly among 2 students. How many coloured pencils will each student get?

Math sentence

Answer

coloured pencils

4 - 8

Division

Review

1 Calculate the following division problems.

- | | | |
|--------------------------------|---------------------------------|---------------------------------|
| 1 $12 \div 3 = \square$ | 2 $15 \div 5 = \square$ | 3 $24 \div 4 = \square$ |
| 4 $32 \div 8 = \square$ | 5 $49 \div 7 = \square$ | 6 $45 \div 5 = \square$ |
| 7 $14 \div 2 = \square$ | 8 $45 \div 9 = \square$ | 9 $0 \div 4 = \square$ |
| 10 $7 \div 1 = \square$ | 11 $80 \div 2 = \square$ | 12 $63 \div 3 = \square$ |

2 Answer the following questions.

- 1** There are 48 pieces of candy. If 8 children share them equally, how many pieces of candy will each child get?

Math sentence Answer pieces of candy

- 2** There are 36 flowers. If we put 4 flowers in each vase, how many vases do we need?

Math sentence Answer vases

- 3** There are 24 black pens and 6 red pens. How many times as many black pens are there than red pens?

Math sentence Answer times

3 Look at the following picture, math sentence and answer. Then choose the most appropriate problem sentence.



Math sentence $15 \div 5 = 3$

Answer 3 cupcakes

- (a) There are 15 cupcakes. If we give 3 cupcakes to each child, how many children can share the cupcakes?
- (b) There are 15 cupcakes. If 5 children share the cupcakes equally, how many cupcakes will each child get?
- (c) There are 5 children. If each child has 3 cupcakes, how many cupcakes are there altogether?