

Lesson 3 – Multiplication & Division – Grouping Practically

NC Objective:

Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers.

Resources needed:

Differentiated Sheets
Teaching Slides

Vocabulary:

Division, multiplication and repeated addition.

Children divide by making equal groups. They then count on to find the total number of groups. They need to do this using concrete manipulatives and pictorially in a variety of contexts. They need to recognise the link between division, multiplication and repeated addition. Children divide by grouping given amounts practically.

Key Questions:

How many do you have to begin with? How many are in each group? How many groups can you make? How long should your number line be? What will you count up in?

___ groups of ___ make ___.

★ Working Towards

Grouping Practically ★★ Fluency & Precision 2

Use counters or cubes and group them equally to answer the questions.

I have 10 counters.
How many groups of 2 can I make?

I have 8 counters.
How many groups of 2 can I make?

I have 15 counters.
How many groups of 5 can I make?

I have 10 counters.
How many groups of 5 can I make?

I have 12 counters.
How many groups of 3 can I make?

I have 6 counters.
How many groups of 3 can I make?

I have 20 counters.
How many groups of 10 can I make?

I have 30 counters.
How many groups of 10 can I make?

They use counters or cubes to physically make equal groups. Children on this sheet have simple instructions for the amount they need to get and the amount needed in the group.

★★ Working Within

Grouping Practically ★★ Fluency & Precision 2

Use counters or cubes and group them equally to answer the questions.

Counters come in packs of 20.
I want to put 5 in a pot.
How many pots will I need?

Counters come in packs of 18.
I want to put 2 in a pot.
How many pots will I need?

Cubes come in packs of 50.
I want to put 10 on each table.
How many tables will I need?

Cubes come in packs of 30.
I want to put 10 on each table.
How many tables will I need?

Pencils come in packs of 15.
I want to put 3 in a pot.
How many pots will I need?

Pencils come in packs of 16.
I want to put 4 in a pot.
How many pots will I need?

I have 8 teddies.
I want to put 2 on a shelf.
How many shelves will I need?

I have 12 teddies.
I want to put 3 on a shelf.
How many shelves will I need?

They use counters or cubes to physically make equal groups. Children on this sheet have simple word problems and use cubes or counters to represent objects.

★★★ Greater Depth

Grouping Practically ★★ Fluency & Precision 2

Use counters or cubes and group them equally to answer the questions.

Counters come in packs of 20. I want to put 8 in a pot.
How many full pots will I have?
How many will be left over?
What division sentence can you write to show the pots equally filled?

Cubes come in packs of 33. I want to put 10 on each table.
How many tables will I need?
How many will be left over?
What division sentence can you write to show the tables equally filled?

Pencils come in packs of 15. I want to put 6 in a pot.
How many pots will I need?
How many will be left over?
What division sentence can you write to show the pots equally filled?

I have 27 teddies. I want to put 5 on a shelf.
How many shelves will I need?
How many will be left over?
What division sentence can you write to show the shelves equally filled?

They use counters or cubes to physically make equal groups. Children on this sheet have a good understanding of equal groups. They work with numbers that enable remainders and work out the division calculation that needs to be used where there will not be a remainder.


Reasoning & Problem Solving

Grouping Practically ★★ Reasoning & Problem Solving 2

You have 20 counters.

How many different ways can you put them into equal groups?

Write down all the possible ways.




Grouping Practically ★★ Reasoning & Problem Solving 2

You have 40 counters.

How many different ways can you put them into equal groups?

Write down all the possible ways.

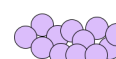


Grouping Practically ★★ Reasoning & Problem Solving 2

You have 54 counters.

How many different ways can you put them into equal groups?

Write down all the possible ways.



Use counters or cubes and group them equally to answer the questions.

I have 10 counters.

How many groups of 2 can I make?



I have 8 counters.

How many groups of 2 can I make?



I have 15 counters.

How many groups of 5 can I make?



I have 10 counters.

How many groups of 5 can I make?



I have 12 counters.

How many groups of 3 can I make?



I have 6 counters.

How many groups of 3 can I make?



I have 20 counters.

How many groups of 10 can I make?



I have 30 counters.

How many groups of 10 can I make?



Use counters or cubes and group them equally to answer the questions.

I have 10 counters.

How many groups of 2 can I make?



I have 8 counters.

How many groups of 2 can I make?



I have 15 counters.

How many groups of 5 can I make?



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I have 12 counters.

How many groups of 3 can I make?



I have 6 counters.

How many groups of 3 can I make?



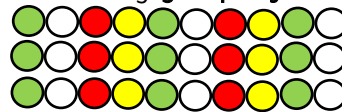
I have 20 counters.

How many groups of 10 can I make?



I have 30 counters.

How many groups of 10 can I make?



Use counters or cubes and group them equally to answer the questions..

I have 10 counters.
How many **groups of 2** can I make?



5

I have 8 counters.
How many **groups of 2** can I make?



4

I have 15 counters.
How many **groups of 5** can I make?



3

I have 10 counters.
How many **groups of 5** can I make?



2

I have 12 counters.
How many **groups of 3** can I make?



4

I have 6 counters.
How many **groups of 3** can I make?



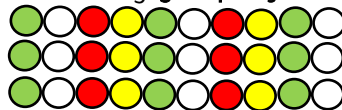
2

I have 20 counters.
How many **groups of 10** can I make?



2

I have 30 counters.
How many **groups of 10** can I make?



3

Use counters or cubes and group them equally to answer the questions..

I have 10 counters.
How many **groups of 2** can I make?



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I have 8 counters.
How many **groups of 2** can I make?



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I have 15 counters.
How many **groups of 5** can I make?



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I have 10 counters.
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I have 12 counters.
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I have 6 counters.
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I have 20 counters.
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I have 30 counters.
How many **groups of 10** can I make?



3



Use counters or cubes and group them equally to answer the questions.

Counters come in packs of 20.

I want to put 5 in a pot.

How many pots will I need?



Counters come in packs of 18.

I want to put 2 in a pot.

How many pots will I need?



Cubes come in packs of 50.

I want to put 10 on each table.

How many tables will I need?



Cubes come in packs of 30.

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Pencils come in packs of 15.

I want to put 3 in a pot.

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Pencils come in packs of 16.

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How many pots will I need?



I have 8 teddies.

I want to put 2 on a shelf.

How many shelves will I need?



I have 12 teddies.

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Use counters or cubes and group them equally to answer the questions.

Counters come in packs of 20.

I want to put 5 in a pot.

How many pots will I need?



4

Counters come in packs of 18.

I want to put 2 in a pot.

How many pots will I need?



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Cubes come in packs of 50.

I want to put 10 on each table.

How many tables will I need?



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Cubes come in packs of 30.

I want to put 10 on each table.

How many tables will I need?



3

Pencils come in packs of 15.

I want to put 3 in a pot.

How many pots will I need?



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Pencils come in packs of 16.

I want to put 4 in a pot.

How many pots will I need?



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I have 8 teddies.

I want to put 2 on a shelf.

How many shelves will I need?



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I have 12 teddies.

I want to put 3 on a shelf.

How many shelves will I need?



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I want to put 5 in a pot.

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Cubes come in packs of 50.

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Cubes come in packs of 30.

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Pencils come in packs of 15.

I want to put 3 in a pot.

How many pots will I need?



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Pencils come in packs of 16.

I want to put 4 in a pot.

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I have 8 teddies.

I want to put 2 on a shelf.

How many shelves will I need?



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I have 12 teddies.

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How many shelves will I need?



4



Use counters or cubes and group them equally to answer the questions.

Counters come in packs of 20. I want to put 8 in a pot.

How many full pots will I have? _____

How many will be left over? _____

What division sentence can you write to show the pots equally filled? _____



Cubes come in packs of 33. I want to put 10 on each table.

How many tables will I need? _____

How many will be left over? _____

What division sentence can you write to show the tables equally filled? _____



Pencils come in packs of 15. I want to put 6 in a pot.

How many pots will I need? _____

How many will be left over? _____

What division sentence can you write to show the pots equally filled? _____



I have 27 teddies. I want to put 5 on a shelf.

How many shelves will I need? _____

How many will be left over? _____

What division sentence can you write to show the shelves equally filled? _____



Use counters or cubes and group them equally to answer the questions..

Counters come in packs of 20. I want to put 8 in a pot.

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I have 27 teddies. I want to put 5 on a shelf.

How many shelves will I need? _____

How many will be left over? _____

What division sentence can you write to show the shelves equally filled? _____





Use counters or cubes and group them equally to answer the questions..

Counters come in packs of 20. I want to put 8 in a pot.

How many full pots will I have? 2

How many will be left over? 4

What division sentence can you write to show the pots equally filled? $16 \div 8 = 2$



Cubes come in packs of 30. I want to put 10 on each table.

How many tables will I need? 3

How many will be left over? 3

What division sentence can you write to show the tables equally filled? $30 \div 3 = 10$



Pencils come in packs of 15. I want to put 6 in a pot.

How many pots will I need? 2

How many will be left over? 3

What division sentence can you write to show the pots equally filled? $12 \div 6 = 2$



I have 27 teddies. I want to put 5 on a shelf.

How many shelves will I need? 5

How many will be left over? 2

What division sentence can you write to show the shelves equally filled? $25 \div 5 = 5$



Use counters or cubes and group them equally to answer the questions..

Counters come in packs of 20. I want to put 8 in a pot.

How many full pots will I have? 2

How many will be left over? 4

What division sentence can you write to show the pots equally filled? $16 \div 8 = 2$



Cubes come in packs of 30. I want to put 10 on each table.

How many tables will I need? 3

How many will be left over? 3

What division sentence can you write to show the tables equally filled? $30 \div 3 = 10$



Pencils come in packs of 15. I want to put 6 in a pot.

How many pots will I need? 2

How many will be left over? 3

What division sentence can you write to show the pots equally filled? $12 \div 6 = 2$



I have 27 teddies. I want to put 5 on a shelf.

How many shelves will I need? 5

How many will be left over? 2

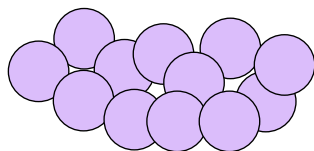
What division sentence can you write to show the shelves equally filled? $25 \div 5 = 5$



You have 20 counters.

How many different ways can you put them
into equal groups?

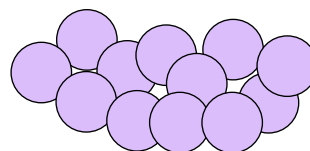
Write down all the possible ways.



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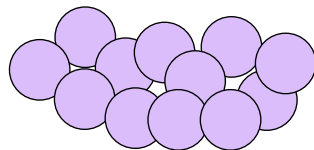
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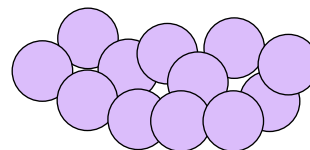
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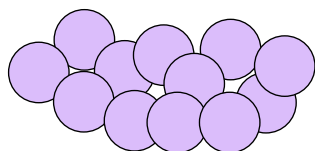


Answers

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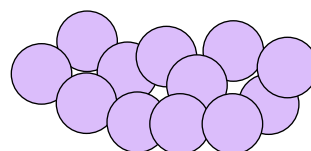
10 groups of 2, 2 groups of 10,
4 groups of 5, 5 groups of 4,
1 group of 20, 20 groups of 1.

Answers

You have 20 counters.

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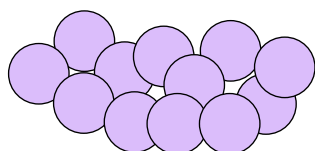
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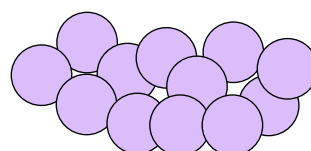
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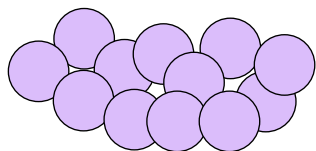


10 groups of 2, 2 groups of 10,
4 groups of 5, 5 groups of 4,
1 group of 20, 20 groups of 1.

You have 40 counters.

How many different ways can you put them
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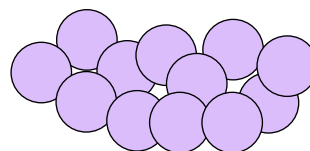
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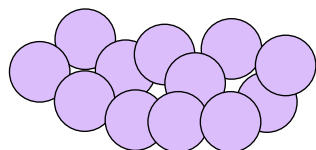
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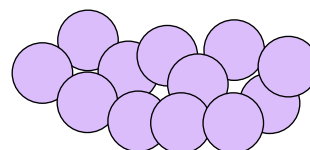
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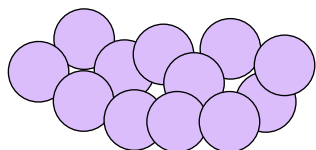


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You have 40 counters.

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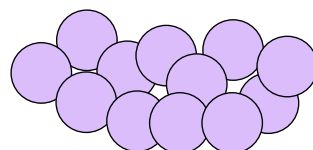
10 groups of 4, 4 groups of 10,
8 groups of 5, 5 groups of 8,
2 groups of 20, 20 groups of 2,
1 group of 40, 40 groups of 1.

Answers

You have 40 counters.

How many different ways can you put them into equal groups?

Write down all the possible ways.



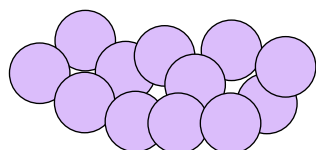
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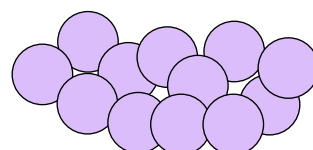
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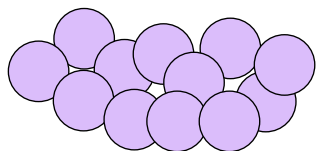
10 groups of 4, 4 groups of 10,
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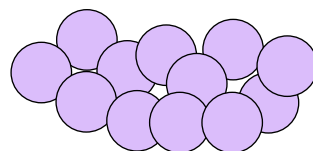
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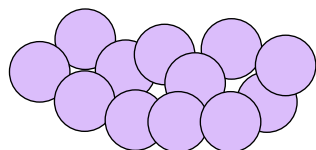
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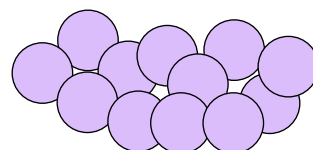
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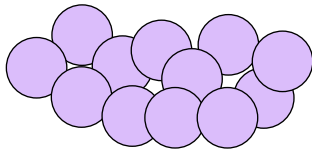


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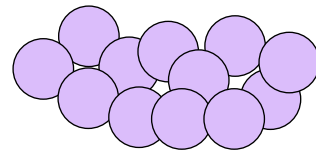
6 group of 9, 9 groups of 6,
3 groups of 18, 18 groups of 3,
2 groups of 27, 27 groups of 2,
1 group of 54, 54 groups of 1.

Answers

You have 54 counters.

How many different ways can you put them into equal groups?

Write down all the possible ways.



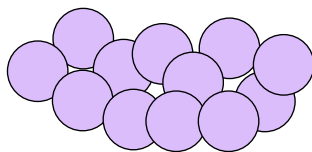
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You have 54 counters.

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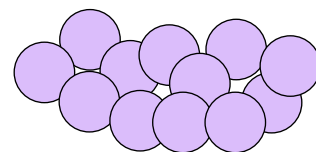
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6 group of 9, 9 groups of 6,
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1 group of 54, 54 groups of 1.