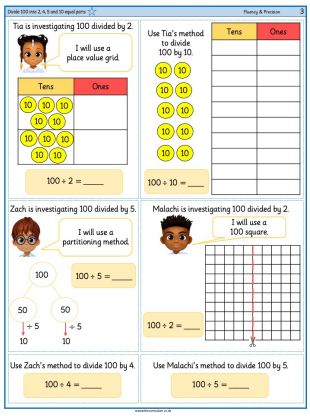
Lesson 10 – Divide 100 into 2 4 5 and 10 equal parts

NC Objective:	Resources needed:	Vocabulary:
write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	Differentiated Sheets Teaching Slides Equipment to divide 100/ base 10, place value counters, grids, 100 squares	Divide, partition, double, half

Children investigate different ways to divide 100 by 2,4, 5 and 10.
The activity on the teaching slide is designed for the children to practically investigate the different ways.
However, these sheets can be used as evidence in books.

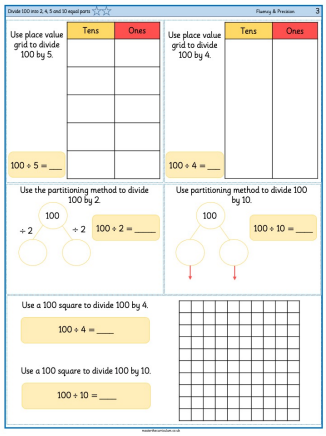
Key Questions:
What ways can you think of to divide 100 equally? What equipment can you use?
Which methods do you prefer?

★ Working Towards



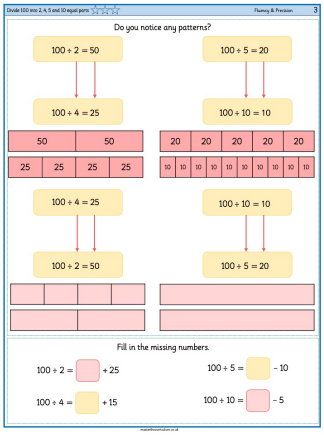
Children will use given pictorial representations to divide 100 by 2, 4, 5 and 10.

★★ Working Within



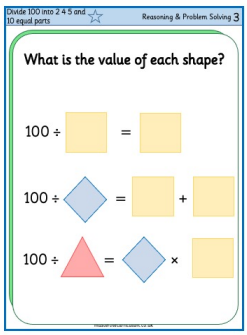
Children will complete given pictorial representations to divide 100 by 2, 4, 5 and 10.

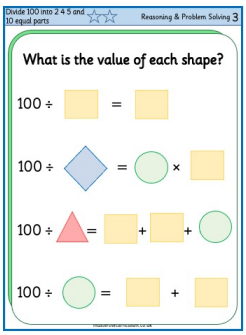
★★★ Greater Depth

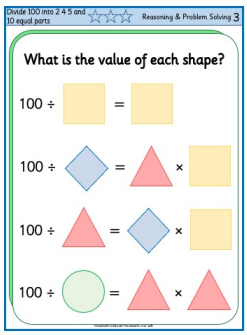


Children will find patterns and fill in missing numbers when dividing 100 by 2, 4, 5 and 10.

Reasoning & Problem Solving







Tia is investigating 100 divided by 2.

I will use a place value grid.

Tens	Ones
10 10 10 10 10	
10 10 10 10 10	

100 ÷ 2 = _____

Use Tia's method to divide 100 by 10.

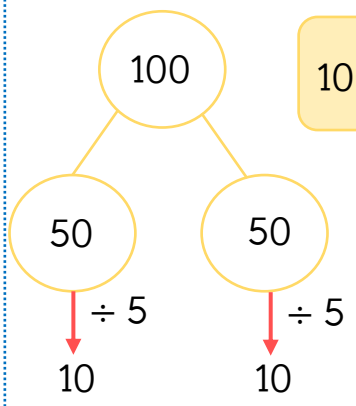
10 10
10 10
10 10
10 10
10 10

100 ÷ 10 = ____

Tens	Ones

Zach is investigating 100 divided by 5.

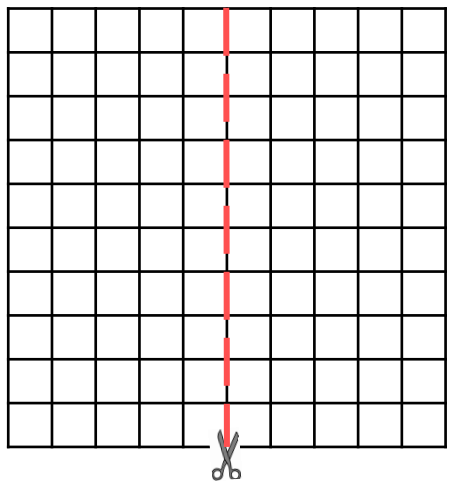
I will use a partitioning method.



100 ÷ 5 = _____

Malachi is investigating 100 divided by 2.

I will use a 100 square.



100 ÷ 2 = ____

Use Zach's method to divide 100 by 4.

100 ÷ 4 = _____

Use Malachi's method to divide 100 by 5.

100 ÷ 5 = _____

Tia is investigating 100 divided by 2.

I will use a place value grid.

Tens	Ones
10 10 10 10 10	
10 10 10 10 10	

100 ÷ 2 = 50

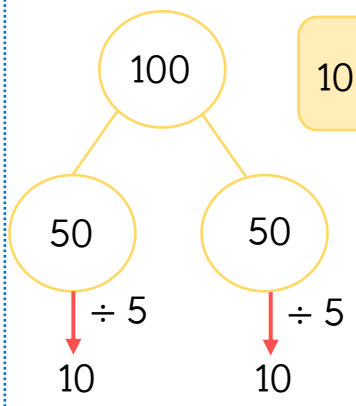
Use Tia's method to divide 100 by 10.

Tens	Ones
10	
10	
10	
10	
10	
10	
10	
10	
10	
10	

100 ÷ 10 = 10

Zach is investigating 100 divided by 5.

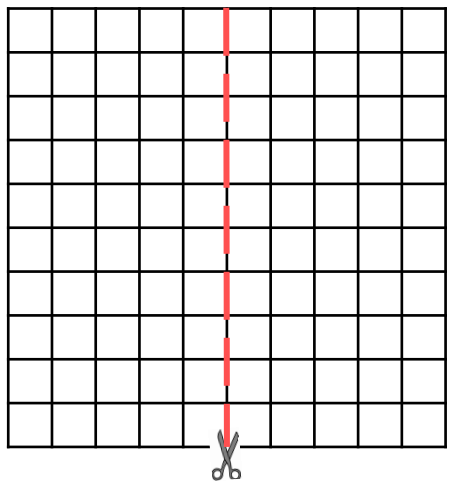
I will use a partitioning method.



100 ÷ 5 = 20

Malachi is investigating 100 divided by 2.

I will use a 100 square.



100 ÷ 2 = 50

Use Zach's method to divide 100 by 4.

100 ÷ 4 = 25

Use Malachi's method to divide 100 by 5.

100 ÷ 5 = 20

Use place value grid to divide 100 by 5.

Tens	Ones

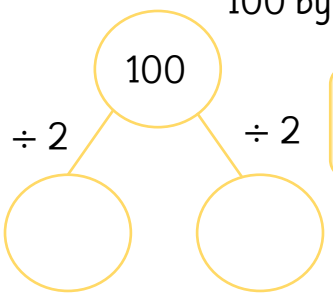
100 ÷ 5 = ___

Use place value grid to divide 100 by 4.

Tens	Ones

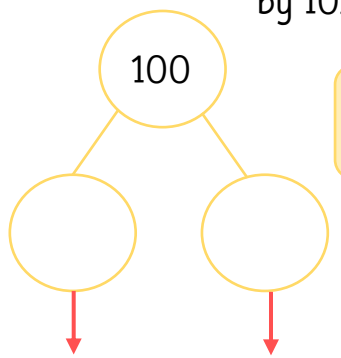
100 ÷ 4 = ___

Use the partitioning method to divide 100 by 2.



100 ÷ 2 = _____

Use partitioning method to divide 100 by 10.



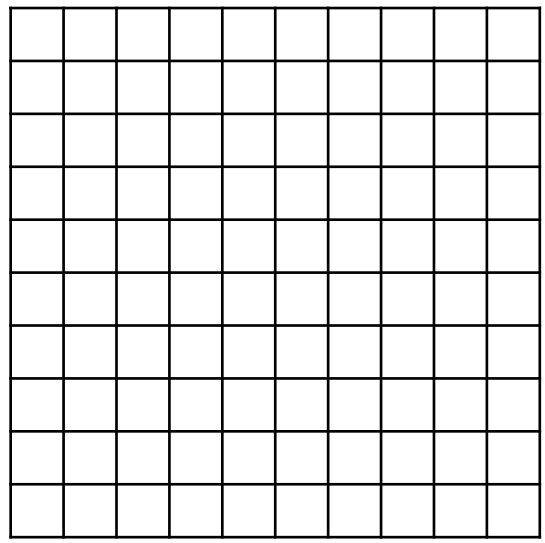
100 ÷ 10 = ____

Use a 100 square to divide 100 by 4.

100 ÷ 4 = ____

Use a 100 square to divide 100 by 10.

100 ÷ 10 = ____



Use place value grid to divide 100 by 5.

Tens	Ones
10 10	
10 10	
10 10	
10 10	
10 10	

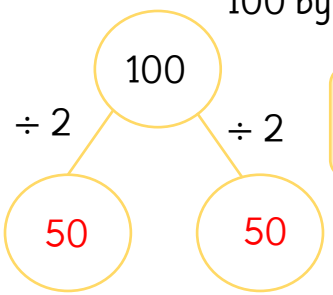
100 ÷ 5 = 20

Use place value grid to divide 100 by 4.

Tens	Ones
10 10	1 1 1 1 1
10 10	1 1 1 1 1
10 10	1 1 1 1 1
10 10	1 1 1 1 1

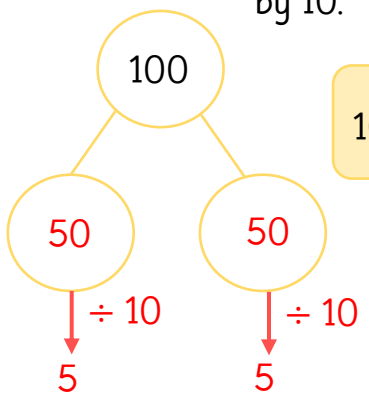
100 ÷ 4 = 25

Use partitioning method to divide 100 by 2.



100 ÷ 2 = 50

Use partitioning method to divide 100 by 10.



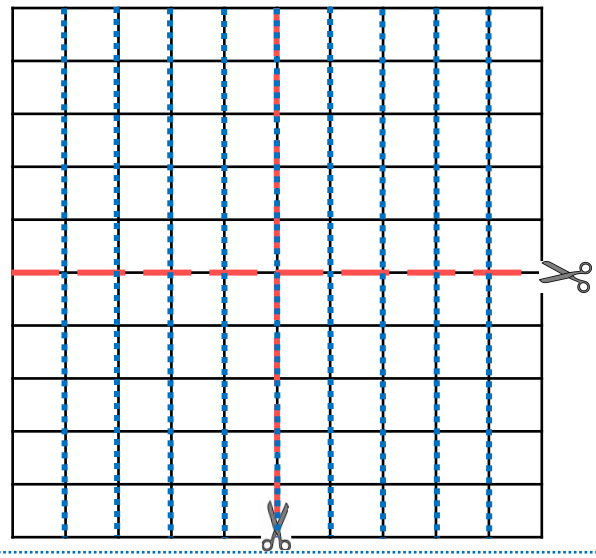
100 ÷ 10 = 10

Use a 100 square to divide 100 by 4.

100 ÷ 4 = 25

Use a 100 square to divide 100 by 10.

100 ÷ 10 = 10



Do you notice any patterns?

$100 \div 2 = 50$

$100 \div 4 = 25$

50	50

25	25	25	25

$100 \div 5 = 20$

$100 \div 10 = 10$

20	20	20	20	20

10	10	10	10	10	10	10	10	10	10

$100 \div 4 = 25$

$100 \div 2 = 50$

$100 \div 10 = 10$

$100 \div 5 = 20$

Fill in the missing numbers.

$100 \div 2 = \square + 25$

$100 \div 4 = \square + 15$

$100 \div 5 = \square - 10$

$100 \div 10 = \square - 5$

Do you notice any patterns?

100 ÷ 2 = 50

Double Half

100 ÷ 4 = 25

50	50

25	25	25	25

100 ÷ 5 = 20

Double Half

100 ÷ 10 = 10

20	20	20	20	20

10	10	10	10	10	10	10	10	10	10

100 ÷ 4 = 25

Half Double

100 ÷ 2 = 50

25	25	25	25

50	50

100 ÷ 10 = 10

Half Double

100 ÷ 5 = 20

10	10	10	10	10	10	10	10	10	10

20	20	20	20	20

Fill in the missing numbers.

100 ÷ 2 = 25 + 25

100 ÷ 4 = 10 + 15

100 ÷ 5 = 30 − 10

100 ÷ 10 = 15 − 5

What is the value of each shape?

100 ÷ ☐ = ☐

100 ÷ ◇ = ☐ + ☐

100 ÷ △ = ◇ × ☐

Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

100 ÷ ☐ = ☐

100 ÷ ◇ = ☐ + ☐

100 ÷ △ = ◇ × ☐

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Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

100 ÷ ☐ = ☐

100 ÷ ◇ = ☐ + ☐

100 ÷ △ = ◇ × ☐

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Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

100 ÷ ☐ = ☐

100 ÷ ◇ = ☐ + ☐

100 ÷ △ = ◇ × ☐

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What is the value of each shape?

$100 \div 10 = 10$

$100 \div 5 = 10 + 10$

$100 \div 2 = 5 \times 10$

Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

$100 \div 10 = 10$

$100 \div 5 = 10 + 10$

$100 \div 2 = 5 \times 10$

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Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

$100 \div 10 = 10$

$100 \div 5 = 10 + 10$

$100 \div 2 = 5 \times 10$

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Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

$100 \div 10 = 10$

$100 \div 5 = 10 + 10$

$100 \div 2 = 5 \times 10$

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What is the value of each shape?

100 ÷ □ = □

100 ÷ ◇ = ○ × □

100 ÷ △ = □ + □ + ○

100 ÷ ○ = □ + □

Divide 100 into 2 4 5 and 10 equal parts ☆☆ Reasoning & Problem Solving 3

What is the value of each shape?

100 ÷ □ = □

100 ÷ ◇ = ○ × □

100 ÷ △ = □ + □ + ○

100 ÷ ○ = □ + □

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Divide 100 into 2 4 5 and 10 equal parts ☆☆ Reasoning & Problem Solving 3

What is the value of each shape?

100 ÷ □ = □

100 ÷ ◇ = ○ × □

100 ÷ △ = □ + □ + ○

100 ÷ ○ = □ + □

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Divide 100 into 2 4 5 and 10 equal parts ☆☆ Reasoning & Problem Solving 3

What is the value of each shape?

100 ÷ □ = □

100 ÷ ◇ = ○ × □

100 ÷ △ = □ + □ + ○

100 ÷ ○ = □ + □

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What is the value of each shape?

$100 \div 10 = 10$

$100 \div 2 = 5 \times 10$

$100 \div 4 = 10 + 10 + 5$

$100 \div 5 = 10 + 10$

Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

$100 \div 10 = 10$

$100 \div 2 = 5 \times 10$

$100 \div 4 = 10 + 10 + 5$

$100 \div 5 = 10 + 10$

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Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

$100 \div 10 = 10$

$100 \div 2 = 5 \times 10$

$100 \div 4 = 10 + 10 + 5$

$100 \div 5 = 10 + 10$

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Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

$100 \div 10 = 10$

$100 \div 2 = 5 \times 10$

$100 \div 4 = 10 + 10 + 5$

$100 \div 5 = 10 + 10$

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What is the value of each shape?

100 ÷ ☐ = ☐

100 ÷ ◇ = △ × ☐

100 ÷ △ = ◇ × ☐

100 ÷ ○ = △ × △

Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

100 ÷ ☐ = ☐

100 ÷ ◇ = △ × ☐

100 ÷ △ = ◇ × ☐

100 ÷ ○ = △ × △

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Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

100 ÷ ☐ = ☐

100 ÷ ◇ = △ × ☐

100 ÷ △ = ◇ × ☐

100 ÷ ○ = △ × △

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Divide 100 into 2 4 5 and 10 equal parts
Reasoning & Problem Solving 3

What is the value of each shape?

100 ÷ ☐ = ☐

100 ÷ ◇ = △ × ☐

100 ÷ △ = ◇ × ☐

100 ÷ ○ = △ × △

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Answers

What is the value of each shape?

$100 \div 10 = 10$

$100 \div 2 = 5 \times 10$

$100 \div 5 = 2 \times 10$

$100 \div 4 = 5 \times 5$

Divide 100 into 2 4 5 and 10 equal parts ☆☆☆ Reasoning & Problem Solving 3

Answers

What is the value of each shape?

100 ÷ 10 = 10

100 ÷ 2 = 5 × 10

100 ÷ 5 = 2 × 10

100 ÷ 4 = 5 × 5

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Divide 100 into 2 4 5 and 10 equal parts ☆☆☆ Reasoning & Problem Solving 3

Answers

What is the value of each shape?

100 ÷ 10 = 10

100 ÷ 2 = 5 × 10

100 ÷ 5 = 2 × 10

100 ÷ 4 = 5 × 5

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Divide 100 into 2 4 5 and 10 equal parts ☆☆☆ Reasoning & Problem Solving 3

Answers

What is the value of each shape?

100 ÷ 10 = 10

100 ÷ 2 = 5 × 10

100 ÷ 5 = 2 × 10

100 ÷ 4 = 5 × 5

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