



**THIRD SPACE
LEARNING**

Math Enrichment Activities

Place Value

2nd Grade

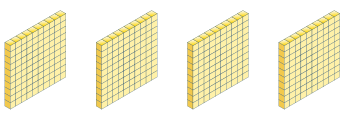
About this resource

These math enrichment activities have been designed to make your students think deeper about a given topic. The questions can be used when a student finishes a task or to add an extra challenge within a lesson. Additionally, the questions can be used in pairs, small groups or as a whole class. .

This resource is designed to be cut up and worked on throughout a topic. With this in mind, each question has been given a reference number matching those in the answer key. This means that you can prepare the math enrichment activities at the beginning of a topic and feel confident that you will share the right answer at the right time.

Each question has a title within a colored banner. The title tells the students what type of question they are working on. The different question categories are detailed in the 'Math Enrichment Activities: Question Categories' document.

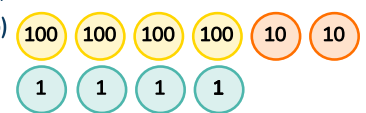
What's the Question?



2PV3

Odd One Out

a) 42 tens + 4 ones

b) 

c) $300 + 120 + 4$

2PV10

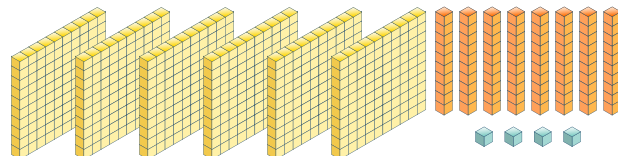
Question 2PV3, for example, is titled 'What's the question?'. The students have been given four hundred cubes as the answer, their task is to think of at least one question that has the answer of 4 hundreds.

Some of the questions could have multiple possible answers. For these questions, there is at least one example answer in the answer key.

Questions

Spot the Mistake

Maisie made the number 10 less than 674 using base 10. Can you spot her mistake?



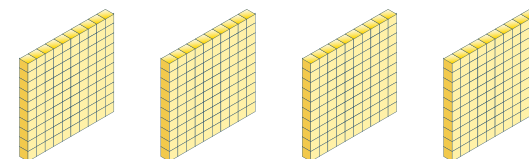
2PV1

What's the Question?

"There are 7 hundreds."

2PV2

What's the Question?



2PV3

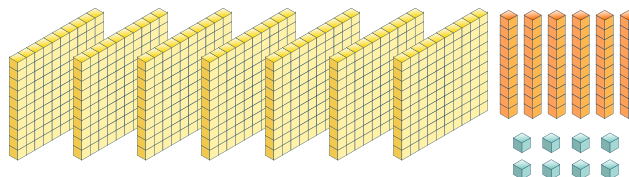
Always, Sometimes, Never

When counting in hundreds, all the numbers will be even.

2PV4

True or False

This represents 100 more than 758



2PV5

Spot the Mistake

248 is the same as 2 hundreds and 48 tens.

2PV6

Always, Sometimes, Never

A number that contains the digit 0 is smaller than a number that does not contain the digit 0.

2PV7

True or False

The number 536 in word form is three hundred thirty-six.

2PV8

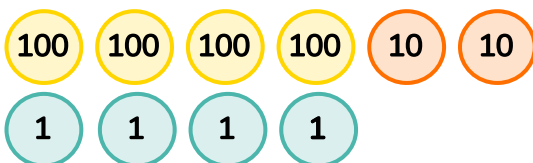
True or False

1 has a greater value than 9 in the number 619.

2PV9

Odd One Out

a) 42 tens + 4 ones

b) 

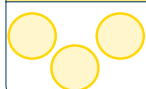
c) $300 + 120 + 4$

2PV10

True or False

If I add 8 counters to the tens column and take one counter away from the hundreds column, my new number would be smaller than the current number.

2PV11

H	T	O
		

Method

Explain how to find 100 more than 460.

2PV12

Method

Explain how to find 10 less than 403.

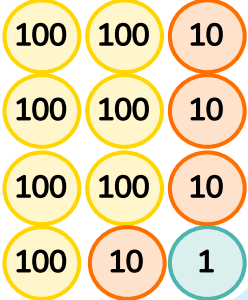
2PV13

Make a Mistake

Complete this question but make a mistake. Explain your mistake.

2PV14

>

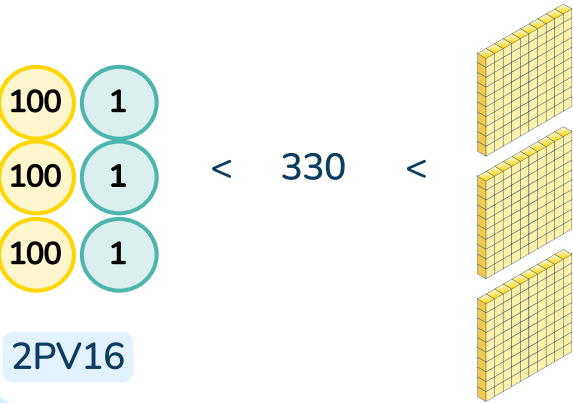


True or False

$$700 + 20 + 4 < 600 + 120 + 14$$

2PV15

Spot the Error



2PV16

Odd One Out

- 50
- 250
- 100
- 40
- 150
- 200

2PV17

What's the Question?

H	T	O

2PV18

Prove It

In any 3-digit number, prove that the value of the hundreds digit is always greater than the value of the tens digit.

2PV19

Picture This

In a 3-digit number, the value of the digit in the tens place is two more than the value of the digit in the ones place.
The value of the digit in the hundreds place is four more than the value of the digit in the tens place.

2PV20

Answers

Question Reference	Question	Answer
2PV1	Spot the Mistake Maisie made the number 10 less than 674 using base 10. Can you spot her mistake? (Base 10 showing 6 hundreds, 8 tens and 4 ones)	Maisie has made 10 more than 674. Her base 10 should show 664.
2PV2	What's the Question? "There are 7 hundreds."	Various answers How many hundreds are in 748? What comes next in the sequence: 400, 500, 600, ?
2PV3	What's the Question? (Base 10 showing 4 hundreds)	Various answers. What comes next in the sequence: 600, 500, ? Use Base 10 to represent 4 hundreds.
2PV4	Always, Sometimes, Never When counting in hundreds, all the numbers will be even.	Sometimes, it depends which number you start on. For example, if you start on 0, the numbers will all be even but if you start on 1, the numbers will all be odd.
2PV5	True or False This represents 100 more than 758 (Base 10 showing 7 hundreds, 6 tens and 8 ones)	False. The picture shows 768, which is 10 more, not 100 more than 758.
2PV6	Spot the Mistake 248 is the same as 2 hundreds and 48 tens.	Various answers. 248 is the same as 2 hundreds, 4 tens and 8 ones. 248 is the same as 2 hundreds and 48 ones.

Question Reference	Question	Answer
2PV7	Always, Sometimes, Never A number that contains the digit 0 is smaller than a number that does not contain the digit 0.	Sometimes. This depends on the position of the other digits. For example: 430 is smaller than 431 but 430 is larger than 429.
2PV8	True or False The number 536 in word form is three hundred thirty-six.	False. The number 536 in word form is five hundred thirty-six.
2PV9	True or False 1 has a greater value than 9 in the number 619.	True. In 619 the 1 is worth 10, whereas the 9 is worth 9.
2PV10	Odd One Out a) 42 tens + 4 ones b) (Counters showing 4 hundreds, 2 tens and 4 ones) c) $300 + 120 + 4$	Various answers, all three show the same number. A is the odd one out because it does not include hundreds in the number sentence. B is the odd one out because it involves counters. C is the odd one out because it does not include tens in the number sentence.
2PV11	True or False If I add 8 counters to the tens column and take one counter away from the hundreds column, my new number would be smaller than the current number. (Place value chart showing 3 hundreds, 1 ten and 2 ones)	True. If I add 8 tens counters and take away 1 hundreds counter, my new number would be 292. This is smaller than the original number, which was 312.
2PV12	Method Explain how to find 100 more than 460.	Answers will vary. Students may use/ draw counters to show only the hundreds increasing. They may identify that the zeros in 100 mean that you don't increase the tens or ones.

Question Reference	Question	Answer
2PV13	Method Explain how to find 10 less than 403.	Students should identify that the tens and hundreds change.
2PV14	Make a Mistake Complete this question but make a mistake. Explain your mistake. (Empty box) > (Counters showing 7 hundreds, 4 tens and 1 one)	Students need to have made a number which is smaller than (or equal to) 741 and explain that the number should be greater than 741.
2PV15	True or False $700 + 20 + 4 < 600 + 120 + 14$	True. $724 < 734$
2PV16	Spot the Error (Counters showing 3 hundreds and 3 ones) < 330 < (Base 10 showing 3 hundreds)	$303 < 330 > 300$ OR students may suggest to swap the counters and the number 330.
2PV17	Odd One Out 50, 250, 100, 40, 150, 200	Students may identify various answers. One answer is that 40 is the only number that is not a multiple of 50. Students may also identify that 50 and 40 are the odd ones out as they are under 100.
2PV18	What's the Question? (Place value grid showing 6 hundreds)	Various answers. What is the largest number you can make from 6 counters? What comes next in the sequence: 400, 500, ?

Question Reference	Question	Answer
2PV19	Prove It In any 3-digit number, prove that the value of the hundreds digit is always greater than the value of the tens digit.	Answers will vary. Students should give examples to prove that the value of the hundreds digit is always greater than the value of the tens digit. For example: 192. The hundreds digit is worth 100, whilst the tens digit is worth 90.
2PV20	Picture This In a 3-digit number, the value of the digit in the tens place is two more than the value of the digit in the ones place. The value of the digit in the hundreds place is four more than the value of the digit in the tens place.	Students should represent the following possible solutions: 620, 731, 842, 953

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Michelle Craig, Instructional Coach,
Sherwood Forest Elementary, Washington

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