## Add a Two-digit and Three-digit Number - Crossing 10 or 100

Fluency \& Reasoning Teaching Slides
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## Activity 1

## Add a Two-digit and

## Here is $38+452$ = ? shown using base 10 . <br> Can you see the numbers shown below? Add the amounts together.

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
|  |  |  |
|  |  |  |

## Activity 1

## Add a Two-digit and

Did you get this? When we add them together we have 10 ones which we can't have in the ones column so we need to put those ten in the tens column by adding another ten rod to the tens.

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
|  | \||| | : |
|  | \|||||| | $8{ }^{\circ}$ |
|  | \||||| |  |

## Activity 1

## Add a Two-digit and

Three-digit Number - Crossing 10 or 100 .

$$
\text { So, } 38+452=490
$$

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
|  | \||| |  |
|  | \||| | - |
|  | $\\|\\|$ |  |

## Activity 2

## Add a Two-digit and

Draw the calculations using base 10. How many 100 squares, tens rods and ones? Work out the answers.


## Activity 2

## Adda Two-digit and

## Did you get these answers?

$45+264=309$

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
|  | 百 |  |

$864+99=963$

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
|  |  |  |

## Activity 2

## Add a Two－digit and

Three－digit Number－Crossing 10 or 100

## And these？

$$
329+68=397
$$

$$
357+53=410
$$

$275+25=300$

| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
| － |  |  |


| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
|  | H昷㮩 |  |
|  |  | ®（1） |


| Hundreds | Tens | Ones |
| :---: | :---: | :---: |
|  |  |  <br> 田田田 |

## Activity 3

## Adda Two-digit and

Let's remember how to use column addition.
Remember: start adding the ones, then tens then hundreds.

So, $8+3=11$. We put the 1 of the 11 under the tens column.


## Activity 3

## Add a Two-digit and

## Then, we add $5+4+1=10$. <br> The 1 of the ten goes under the hundreds column.



## Add a Two-digit and

## Then, we add $2+1$ = 3 <br> So the answer is 301.

| 301 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 43 | 258 |  |  |
|  | H | T | O |
| + | 2 | 5 | 8 |
|  | 3 | 4 | 3 |
| 1 |  |  | 1 |

## Add a Two-digit and

## Activity 3

Three-digit Number-Crossing 10 or 100

## How did you do? Have a go at this one!



## Add a Two-digit and

## Activity 3

Three-digit Number-Crossing 10 or 100

## How did you do?

## Have a go at the part whole model one.

| 775 | 44 |
| :---: | :---: |
| 819 |  |


|  | $\mathbf{H}$ | $\mathbf{T}$ | $\mathbf{O}$ |
| :---: | :---: | :---: | :---: |
|  | 7 | 7 | 5 |
| + |  | 4 | 4 |
|  | 8 | 1 | 9 |

1


## Activity 3

## Add a Two-digit and

Three-digit Number-Crossing 10 or 100

## How did you do?



|  | $\mathbf{H}$ | $\mathbf{T}$ | $\mathbf{O}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3 | 0 | 4 |  |  |
| + |  | 9 | 9 |  |  |
|  | 4 | 0 | 3 |  |  |
| 1 |  |  |  |  | 1 |

## Activity 4

Three-digit Number-Crossing 10 or 100

## Solve these calculations using column addition.

$$
67+567
$$

$$
647+33
$$

$$
777+55
$$

$$
835+86
$$

## Adda Two-digit and

## How did you do?



## Reasoning 1

Three-digit Number-Crossing 10 or 100

## Malachi is working out $265+67$.



Here is his working out:


Is he correct? Explain why.

## Reasoning 1

Three-digit Number-Crossing 10 or 100

## Malachi is working out 265 + 67 .

$$
265+67=222
$$

Here is his working out:

|  | $\mathbf{H}$ | $\mathbf{T}$ | $\mathbf{0}$ |
| ---: | :---: | :---: | :---: |
|  | $\mathbf{2}$ | 6 | 5 |
| + |  | 6 | 7 |
|  | $\mathbf{2}$ | $\mathbf{2}$ | $\mathbf{2}$ |

Malachi is incorrect because he has not exchanged 10 ones for 1 ten or 10 tens for 1 hundred.

The answer should be 332.

Is he correct? Explain why.

