Counting backwards

Count back in **ones** from 10

Count back in **twos** from 20

Count back in **fives** from 30

Count back in **tens** from 50

Which took the longest to do ? Why?

Which was the quickest to do? Why?

Monday

Learning Question:

How can I use exchanging to solve subtraction calculations ?

Success Criteria:

Partition 3 digit numbers using place value columns.

Confidently subtract 1s, 10s and 100s to 3 digit numbers.

Show calculation in a column method.

Know when it is necessary to exchange.
Know that you exchange 1 ten to 10 ones.
Know that you exchange 1 hundred to 10 tens.

Vocabulary

Subtract

Digit

Place value

Exchange

Exchanging

How many ones in 1 ten ?

How many tens in 1 hundred?

How many hundreds in 1 thousand?

Answers

How many ones in 1 ten ?

10 ones

How many tens in 1 hundred?

10 tens

10 , 20 , 30, 40, 50, 60, 70, 80, 90, 100

How many hundreds in 1 thousand?

10 hundreds

100, 200, 300, 400, 500, 600,700,800,900,1000

Exchange..

Instead of

1 hundred + 2 tens + 4 ones

We could say …

1 hundred + _____ + 14 ones

Exchange..

Instead of

1 hundred + 2 tens + 4 ones

We could say …

1 hundred + 1 ten + 14 ones

Exchange using your deines blocks

Instead of

2 hundred + 1 ten + 2 ones

We could say …

1 hundred + 11 tens + 2 ones

Exchange without your dienes blocks

Instead of

1 hundred + 9 tens + 3 ones

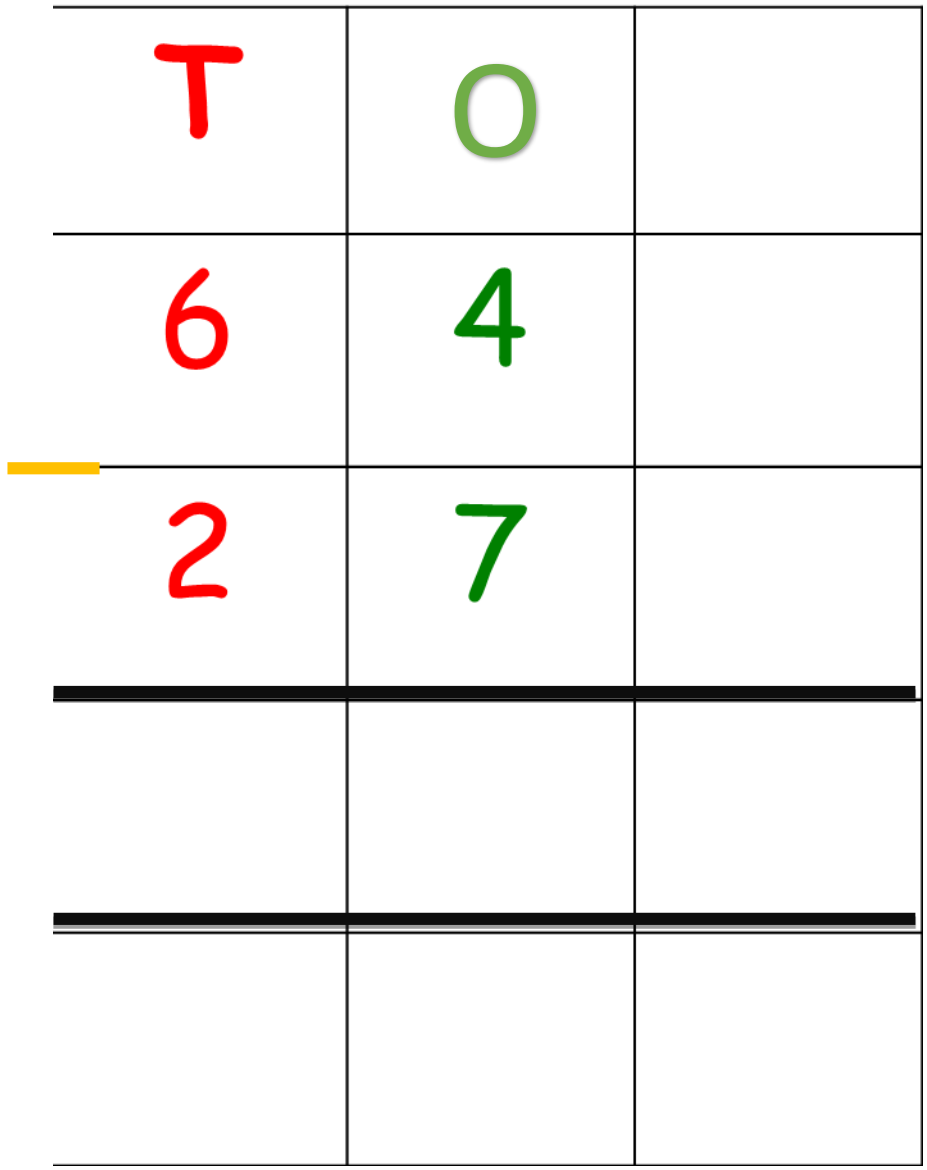
We could say …

1 hundred + 8 tens + 13 ones

T	O	
6	4	
− 2	7	

Where do we start in our calculation?

What is the problem?



Step 1: Subtract ones

What is the problem?

4 – 7 is not possible

T	O	
~~6~~ 5	14	
2	7	
	7	

Exchange from tens.

Take 1 ten from 6 tens.

5 tens remaining.

Exchange 1 ten for ten ones.

10 ones + 4 ones = 14 ones.

14 – 7 = 7

T	O	
~~6~~ 5	1 4	
2	7	
3	7	

Subtract tens.

5 tens – 2 tens = 3 tens

Try this calculation.

	T	O		
	9	6		
−	4	7		

Use the steps on the previous calculation to help you.

Were you correct?
If not, can you spot your mistake and try again?

	T	O		
	~~4~~ 3	1 3		
−	2	6		
	2	7		

Choose your starting task

Hard: Subtracting 2 digit numbers and ones (without exchanging)

19 – 7 =

Harder : Subtracting 2 digit numbers and ones (with exchanging)

35 – 7 =

Hardest : Subtracting 2 digit numbers and 2 digit numbers (with exchanging)

65 – 27 =

Herculean: Subtracting 3 digit numbers and 3 digit numbers (with exchanging)

216 – 179 =

Use the column method to solve these subtraction problems.
Use exchanging where necessary

Hard	Harder	Hardest
1. 18 – 5 = 2. 14 – 2 = 3. 29 – 8 = 4. 37 – 5 = 5. 43 – 1 = Order your answers from smallest to largest. For each answer, can you create a different calculation with the same answer?	1. 26 – 8 = 2. 34 – 7 = 3. 28 – 9 = 4. 32 – 6 = 5. 45 – 7 = Order your answers from smallest to largest. For each answer, can you create a different calculation with the same answer?	1. 45 – 19 = 2. 34 – 15 = 3. 26 – 17 = 4. 54 – 19 = 5. 32 – 24 = Order your answers from smallest to largest. For each answer, can you create a different calculation with the same answer?

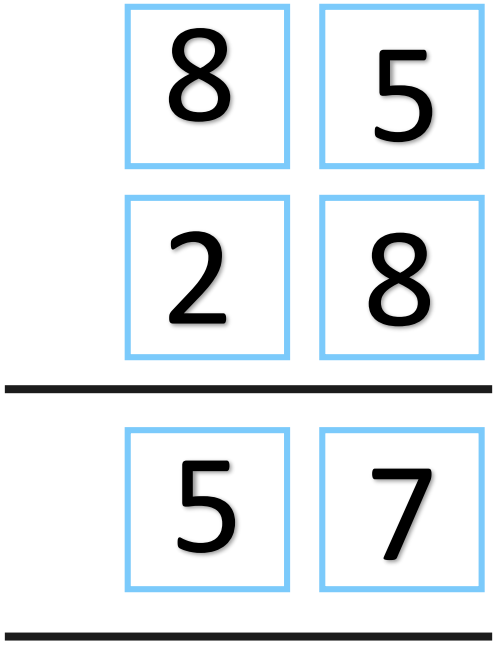
Use comparison symbols to make the statements true

> = <

$$\begin{array}{r} 456 \\ -\ 61 \\ \hline \\ \hline \end{array} \quad \bigcirc \quad \begin{array}{r} 428 \\ -\ 39 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 825 \\ -\ 52 \\ \hline \\ \hline \end{array} \quad \bigcirc \quad \begin{array}{r} 795 \\ -\ 18 \\ \hline \\ \hline \end{array}$$

Plenary – How do you know this is correct?



Challenge:

Use these 4 digits in the four spaces to create a subtraction calculation.

What are all the possible answers you can find?

2 5 7 8