

Use number sense

Rounding numbers to estimate
 $2467 + 1729$ is approximately
 $2500 + 1700$

Partition numbers
 $732 - 137$ (by partitioning the second number and counting back; $-100, -32, -5$)

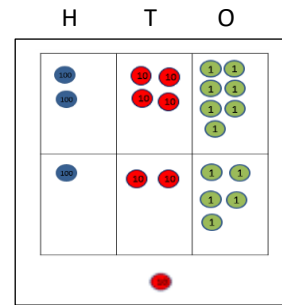
Find the difference rather than subtract
 $607 - 288$ (by counting up from 288, bridging the hundreds boundary; $+12, +400, +7$)

Calculate and adjust
 $1487 - 199$ (by subtracting 200 and adding 1)

Check using inverse operations
 check $564 - 150 = 414$ with
 $414 + 150 = 564$

Representations to support addition

We can use equipment to find the total of two numbers. This builds on the expanded method from Y3 into the compact method.



H	T	O
200	40	7
+ 100 20 5		
300	60	12
= 372		

H	T	O
200	40	7
+ 100 20 5		
300	70	2
= 372		
1		

H	T	O
2	4	7
+ 1 2 5		
3	7	2
= 372		
1		

Prove it!

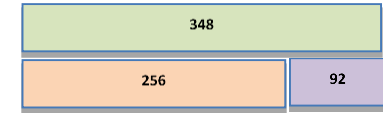
Addition and subtraction are the inverse (opposite) of each other

Year 4 Addition and Subtraction

A Problem with Measures

The perimeter of a rectangle is 40cm. What could the sides measure? Are there different solutions?

Understand the inverse relationship between addition and subtraction.



Continue to understand the inverse relationship between addition and subtraction, including with missing numbers

$256 + 92 = 348$	$92 + 256 = 348$
$348 = 256 + 92$	$348 = 92 + 256$
$348 - 256 = 92$	$348 - 92 = 256$
$92 = 348 - 256$	$256 = 348 - 92$

Recognise that $256 + 92$ is equal to $92 + 256$
 Addition is commutative (order doesn't matter)

Recognise that subtraction is not commutative (order affects the calculation)
 $348 - 92$ is not equal to $92 - 348$

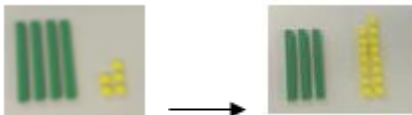
Understand that missing number problems can often be solved by working backwards by using the inverse operation

$456 + \square = 673$	$\square = 300 + 176$	$\square + \square = 125$
$1000 - 103 = 450 + \square$	$450 < \square + 60$	

Representations to support subtraction

We can use equipment to find the difference between two numbers. This builds on the expanded method from Y3 into the compact method.

40 and 5 → 30 and 15



45 - 26

Partition 45 into 30 and 15
 Subtract ones $15 - 6 = 9$
 Subtract tens $30 - 20 = 10$
19

T	O
30	15
- 20 6	
10	9

T	O
30	15
- 20 6	
10	9

T	O
30	15
- 20 6	
1	9

Use the correct vocabulary

partition, recombine, calculate, plus, add total, increase, sum, altogether, how much /many more..? decrease, minus, subtract take away, less, fewer, difference partition, exchange, adjust

Real life problems

Joe has 257 football stickers and Ayush has 365. How many stickers do they have altogether? Check your answer by using the inverse calculation.

Investigate

Always, sometimes, never true

A four digit number plus a 4 digit number equals a four digit number

The sum of 3 odd numbers is even.