# **Year Four — Addition and Subtraction**

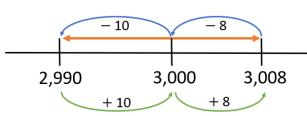


### **Key Vocabulary**

Add	To add two or more groups together to find the total
Subtract	To take away an amount from a whole
Equals	How many altogether
Column addition	Addition by writing one number below the other and then adding one column at a time. Formal written method for addition
Column Subtraction	Formal written method for subtraction. Writing one number below the other and then subtracting on column at a time.
Partition	Breaking up into parts; usually through each place value.
Inverse Operation	An operation that undoes what was done by the previous operation. The inverse of addition is subtraction.

## **Efficient Methods**

$$3,008 - 2,990 = 18$$



### Addition

# **Subtraction**

#### Add two 4 digit numbers—no exchange

Starting with the ones, add each column in turn.

$$1,731 + 3,052 = 4,783$$

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•		00			3	0	
				+	1	7	
•	00	00	0		4	7	
	9 () 9 ()	(D)					

	<u>Th</u>	Н	Т	0
	3	0	5	2
+	1	7	3	1
	4	7	8	3

#### Add two 4 digit numbers—one exchange

Exchange 10 ones for 1 ten or 10 tens for 1 hundred

					<u>Th</u>	Н	T	0
	<u>Th</u>	Н	Т	0	1000	100 100	10 10	00
	2	2	6	3			10 10 10 10	
+	1	3	5	1	1000	100 100	000	1
	3	6	1	4		100	0	
		1			3	6	1	4
						100		

#### 4,562 - 3,152 = 1,410

Subtract two 4 digit numbers

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	Th	Н	Т	0
	4	5	6	2
_	3	1	5	2
	1	4	1	0

#### Subtract two 4 digit numbers—one exchange

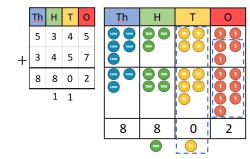
When subtracting 2 tens -4 tens, exchange 1 hundred to make: 12 tens - 4 tens = 8 tens

Starting with the ones, subtract each column in turn.

$$8,229 - 6,145 = 2,084$$

Th	Н	Т	0	Th	Н	Т	0
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		100 100 100 100 100 100 100 100 100 100		6	1	4	5
ØØ		0 0	Ø Ø	2	0	8	4
			Ø				

### Add two 4 digit numbers—more than one exchange



### Subtract two 4 digit numbers—more than one exchange Starting with the ones, subtract each column in turn. Exchange tens, hundreds and/ or thousands as required.

	Th	Н	Ţ	0	Th	Н	Т	0
	3	A	10	12	<b>•</b> •	Ø Ø	00	00
_	1	3	0	9		~	00	Ø Ø
	2	0	9	3			00	88
								<b>Ø Ø</b>