# ADD TWO 4-DIGIT NUMBERS (ONE EXCHANGE)



## GET READY





$$2) ---- + 400 = 1,000$$

3)  $10 \text{ hundreds} = \underline{\hspace{1cm}} \text{thousand}$ 

1) 
$$4 + \underline{6} = 10$$

$$2) \quad \underline{600} + 400 = 1,000$$

3) 10 hundreds = 1 thousand

# LET'S LEARN





Dexter scores 1,351 points in a game. Rosie scores 2,263 points.

3,614

How many points do they score altogether?

,				
	Th	Н	Т	O
	2	2	6	3
+	1	3	5	1
	3	6	1	4
		1		

Th	Н	Т	0
1.000	100 100	10 10 10 10 10 10	
1.000	100	10 10 10 10	
3	6	1	4

100



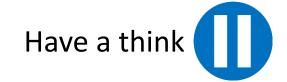
Miss Rose has £ 4,846 in one bank account and £ 1,233 more in another account. How much money is in her second account? £ 6,079

	Th	Н	Т	0
	4	8	4	6
+	1	2	3	3
	6	0	7	9
'	1			

Th	Н	Т	0
1,000 1,000	100 100 100 100 100 100	10 10	
1.000	100 100	10 10	
6	0	7	9



1) 
$$2,022 + 7,085$$



- 2) 813 + 2,471
- 3) 8,610 + 1,283
- 4) 3,657 + 5,227

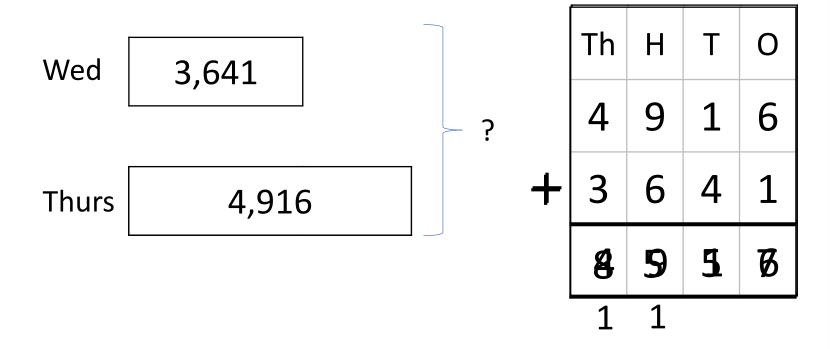
No exchange	Exchange 100s for 1,000s	Exchange 10s for 100s	Exchange 1s for 10s
3)	2)	1)	4)



A pilot flies 3,641 km on Wednesday. On Thursday she flies 1,275 km further than she flew on Wednesday.

How far does she fly on both days in total?

8,557 km



#### YOUR TURN

Have a go at questions 1 - 5 on the worksheet

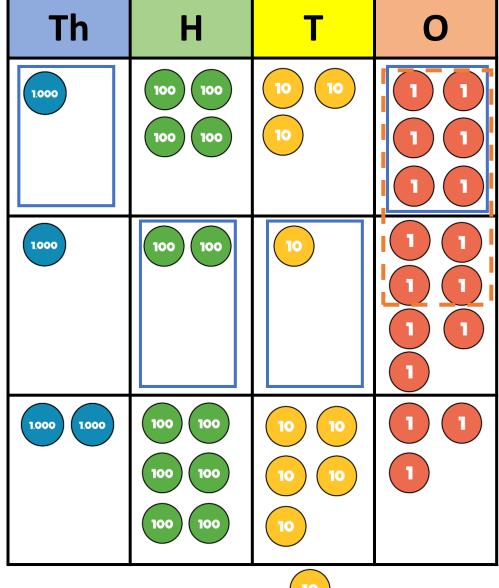




	Th	Н	T	0
	1	4	3	6
+	1	2	1	7
	2	6	5	3
			1	

$$+7 = 3$$

$$+7 = 3$$
 $6 + 7 = 13$ 







	Th	Н	Т	O
	4	9	2	7
+	3	1	6	0
	7	0	8	7
	1			

#### YOUR TURN

Have a go at the rest of the worksheet





ADD 4 DIGIT
NUMBERS WITH
MORE THAN ONE
EXCHANGE





## GET READY





1) How many exchanges will there be in this addition?

$$748 + 272$$

2) 10 tens = \_\_\_\_ hundred

3) 16 tens = \_\_\_\_ hundred and \_\_\_\_ tens



1) How many exchanges will there be in this addition? There will be two exchanges

$$748 + 272$$

2)  $10 \text{ tens} = \underline{1}$  hundred

3) 16 tens = 1 hundred and 6 tens

# LET'S LEARN





	Th	Н	Т	0
	5	3	4	5
+	3	4	5	7
	8	8	0	2
'		1	1	

Th	Η	Т	0
1000 1000	100 100	10 10	
1,000	100 100	10 10	
8	8	0	2
	100	10	



	Th	Н	Т	0
	2	7	3	5
+		3	1	6
	3	0	5	1
'	1		1	

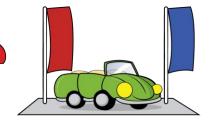
Th	Н	Т	0
1.000	100 100	10 10	
	100 100	20	
3	0	5	1
1.000		10	



Two cars are for sale.

The first car costs £3,655

The second car costs £1,755 more.



- 1) How much does the second car cost? £5,410
- 2) Mr Jones has £9,000 He wants to buy both cars. Does he have enough money?

No, he does not have enough money.

Th	Н	Т	0
		•	
5	4	1	0
3	6	5	5
9	<b>4</b>	6	<b>G</b>
1	1	1	

#### YOUR TURN

Have a go at questions 1 - 5 on the worksheet

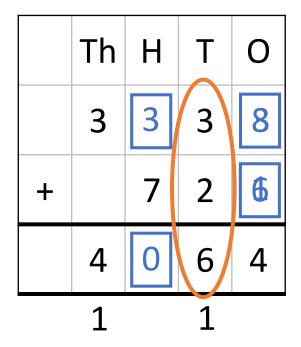






8 hundreds + 3 hundreds = 11hbaddedds





$$| + | = 14$$

|3| hundreds + 7 hundreds = 1 | 0| hundreds

#### YOUR TURN

Have a go at the rest of the worksheet





SUBTRACT TWO
4-DIGIT NUMBERS
(ONE EXCHANGE)



## GET READY





1) 
$$7,058 - 3,042 =$$

$$2)$$
 1,635  $-$  601  $=$ 

3) 1 thousand = \_\_\_\_\_ hundreds



1) 
$$7,058 - 3,042 = 4,016$$

2) 
$$1,635 - 601 = 1,034$$

3) 1 thousand =  $\underline{10}$  hundreds

# LET'S LEARN





A cyclist rides 4,154 km in May. In June she cycles 1,522 km.



How many more km does she cycle during May?

2,632 km

4,154 — 1 5 2 2	Th	Н	Т	0		Th	Н	Т	0
		lay	4,154			34	11	5	4
		100	33 3		—	1	5	2	2
June 1,522 2 6 3 2	)(	1,5	22			2	6	3	2

1 hundred — 5 hundreds = 11 hundreds — 5 hundreds = 1 thousand = 10 hundreds



$$1 \text{ ten} = 10$$
 ones Have a think

$$1 \text{ hundred} = 10 \text{ tens}$$

1 thousand 
$$=$$
 10 hundreds









$$8,231 - 7,620 = 611$$

Th	Н	Т	0
120 120	100 100 100 100 100 100 100 100 100 100	20	

Th	I	Т	0
78	12	3	1
7	6	2	0
0	6	1	1

#### YOUR TURN

Have a go at questions 1 - 5 on the worksheet







$$2,534 - 1,702 = 832$$

Have a think

Th	Н	Т	0
1/2	<sup>1</sup> <sub>5</sub>	3	4
1	7	0	2
0	8	3	2

15 hundreds – 7 hundreds

7 hundreds – 5 hundreds



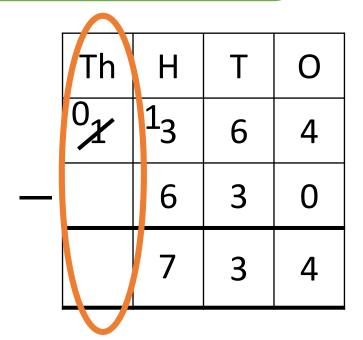






The answer to 1,364 — 630 will have 1 thousand because there is nothing to subtract from 1 thousand

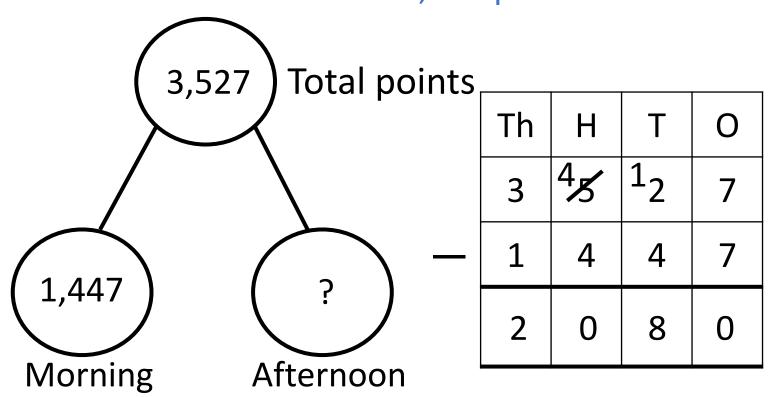
Explain why Dexter is not correct.





During a dance competition, Ron scores a total of 3,527 points. He scores 1,447 points in the morning. How many points does he score in the afternoon?

2,080 points



### YOUR TURN

Have a go at questions 6 - 9 on the worksheet





SUBTRACT TWO
4-DIGIT NUMBERS MORE THAN ONE
EXCHANGE



## GET READY





1) 
$$7,614 - 6,344 =$$

4) 1 thousand = \_\_\_\_\_ tens



1) 
$$7,614 - 6,344 = 1,270$$

2) 1 thousand = 
$$\underline{10}$$
 hundreds

3) 
$$1 \text{ hundred} = \underline{10}$$
 tens

4) 1 thousand = 
$$\underline{100}$$
 tens

## LET'S LEARN





A cargo ship's journey is 4,065 km. It has sailed 2,128 km.



How much further does it need to sail?

1,937 km

Th	4.06	5 km	0
1000	100 100	10 10	1
17.0 (1.000	100 (100)	10	1 1
2,1	2 100 100	<u>∞</u> .	
Sa	iled	Still to	

Th	Н	Т	0
<sup>3</sup> /	10	56	1 <sub>5</sub>
2	1	2	8
1	9	3	7



$$3,402 - 1,309 = 2,093$$
 Have a think

Th	Н	T	О
3	5 X	9 <b>1</b> Q	<sup>1</sup> <sub>2</sub>
 1	3	0	9
2	0	9	3

Th	Н	Т	0
1000	100	10 10 10 10 10 10 10 10	

### YOUR TURN

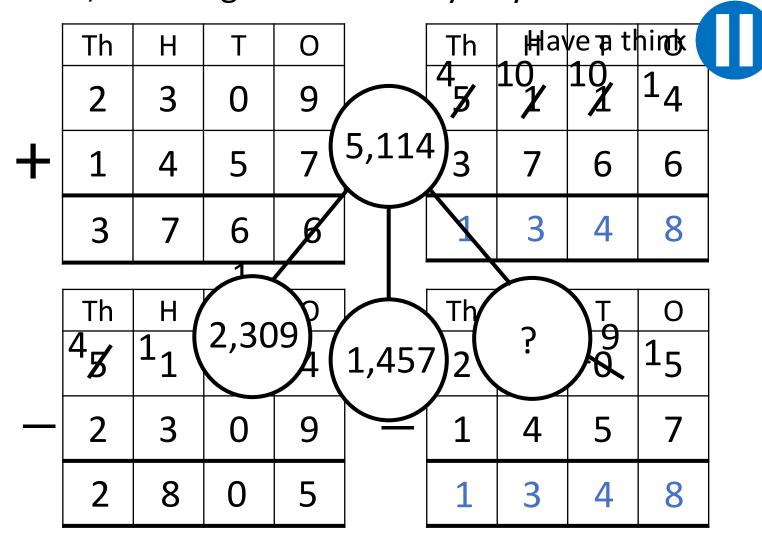
Have a go at the questions 1 - 3 on the worksheet



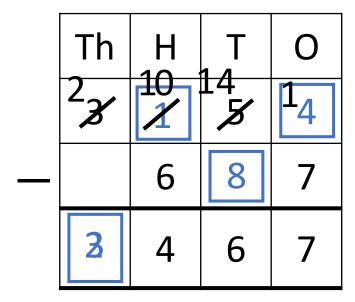




5,114 people attend the theatre. 2,309 are adults and 1,457 are girls. How many boys attend?







14 ones -7 ones =7 ones

14 tens – 8 tens = 6 tens

10 hundreds – 6 hundreds = 4 hundreds

### YOUR TURN

Have a go at the questions 4 to 7 on the worksheet





ADD WHOLE
NUMBERS WITH
MORE THAN
4 DIGITS



## GET READY





# 1) Without calculating, in what column will the exchange happen?

$$8,322 + 1,294$$

2) Ten 1,000s equals \_\_\_\_\_ ten thousand.

3) 
$$\_\_\_$$
 + 4,135 = 6,352



1) Without calculating, in what column will the exchange happen?

2) Ten 1,000s equals <u>1</u> ten thousand.

3) 
$$2,217 + 4,135 = 6,352$$

## LET'S LEARN





TTh	Th	Н	Т	0
	7	7	7	5
	4	4	2	0
1	2	1	9	5
1	1			

TTh	Th	Н	Т	0
	1000	100 100	10 10	
	1,000	100 100	10 10	
	1000	100	10	
	1,000	100 100	10 10	
	1000	100 100		
1	2	1	9	5

10.000



12,195



## Have a think

	TTh	Th	Н	Т	0
		7	2	4	0
+		2	8	1	9
	1	0	0	5	9
	1	1			

	TTh	Th	Н	Т	0
	2	2	0	5	6
+	3	1	7		
	2	2	3	7	3
				1	

### YOUR TURN

Have a go at questions 1 and 2 on the worksheet







$$6,412 + \boxed{3,563} = 9,975$$

	Th	Н	Т	0
	6	4	1	2
+	3	5	6	3
	9	9	7	5

Th	Η	Т	0	
1,000 1,000	100 100	10	1 1	
1000	100 100	10 10 10 10 10	1	
9	9	7	5	

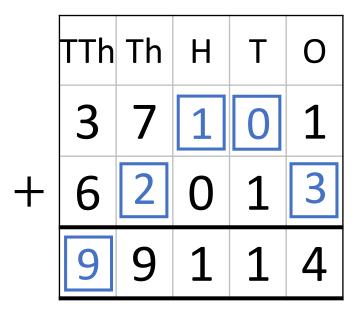


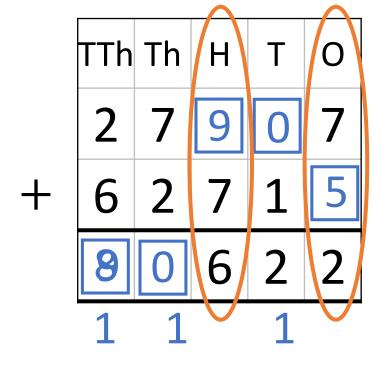
$$582 \text{ cm} + 63,070 \text{ cm} + 76 \text{ m} =$$

582 cm + 63,070 cm + 7,600 cm = 71,252 cm

	TTh	Th	Н	Т	0
	6	3	0	7	0
		7	6	0	0
+			5	8	2
	7	1	2	5	2
1	1	1	1		







- hundreds + 7 hundreds <del>7 16</del> hundreds
- 9 hundreds + 7 hundreds7=+16 hundreds

#### YOUR TURN

Have a go at the rest of the questions on the worksheet





SUBTRACT
WHOLE NUMBERS
WITH MORE
THAN 4 DIGITS



## GET READY





1) \_\_\_\_\_ tens = 1 thousand

$$2)$$
 4,102 - 2,510 =

3) 738 – 461 = 337 In which place value column in the answer is there an error?



1) 
$$\underline{100}$$
 tens = 1 thousand

$$2)$$
  $4,102 - 2,510 = 1,592$ 

3) 738 - 461 = 337In which place value column in the answer is there an error? Tens column

4) 
$$3,217 - 464 = 2,753$$

## LET'S LEARN





#### 56,490 - 35,491 = 20,999

		٦	ΓTh	Th	Н	Т	0
		10.000	0 10.000	120 120	100 100 100 100 100 100	10 10 10 10 10 10	
TTh	Th	Н	Т	О	100 100	10 2	
5	58	13 <b>A</b>	18	10			
3	5	4	9	1			
2	0	9	9	9			



#### 14,372 - 2,540 = 11,832

		TTh		Th	Th	Н	Т	0
			10.000	)	1000	100 100	10 10	
					1000	100	10 /	
						100 100		
	TTh	Th	H	Т	0	100 100		
	1 111	_						
	1	3	13	7	2			
_		2	5	4	0	•		
	1	1	8	3	2			



Mr Jones has £22,200

He buys a new car for £15,515 and spends £1,008 on a holiday.

How much money does he have left? £5,677

	TTh	Th	Τ	٦	0
	12	11,	11,2	XX	10
_	1	5	5	1	5
	0	6	6	8	5

	Th	Н	_T	0
	6	6	×	15
-	1	0	0	8
	5	6	7	7



The distance around the middle of the moon is 10,921 km.

The distance around the middle of the earth is 40,075 km.

How much further is it around the earth than the moon? 29,154 km



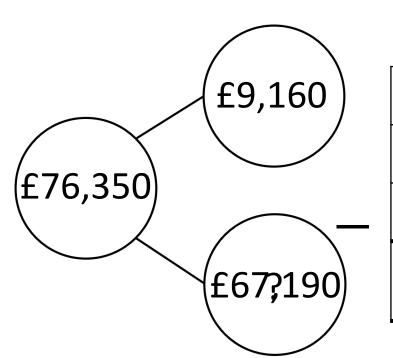
	TTh	Th	Н	Т	0
Moon 10,921 ?	3 A	10	10	7	5
Earth 40,075 —	1	0	9	2	1
	2	9	1	5	4



Miss Rose has £76,350

Have a think
£9,160 of her money is in High Street bank
and the rest is in National Bank.

How much is in National Bank?



£67,190

TTh	Th	Н	Т	0
7	16	2	15	0
	9	1	6	0
6	7	1	9	0

### YOUR TURN

Have a go at the questions on the worksheet





# ROUND TO ESTIMATE AND APPROXIMATE



## GET READY





1) 
$$7,116 - 3,655 =$$

$$2)$$
 51,540 + 5,154 =

3) Round 84,564 to the nearest 1,000

4) Round 84,564 to the nearest 10,000



1) 
$$7,116 - 3,655 = 3,461$$

2) 
$$51,540 + 5,154 = 56,694$$

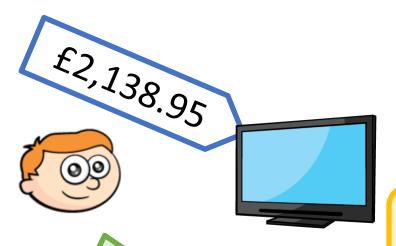
3) Round 84,564 to the nearest 1,000 85,000

4) Round 84,564 to the nearest 10,000 80,000

# LET'S LEARN







I have £3,800 in my bank. Can I afford to buy the TV and laptop?

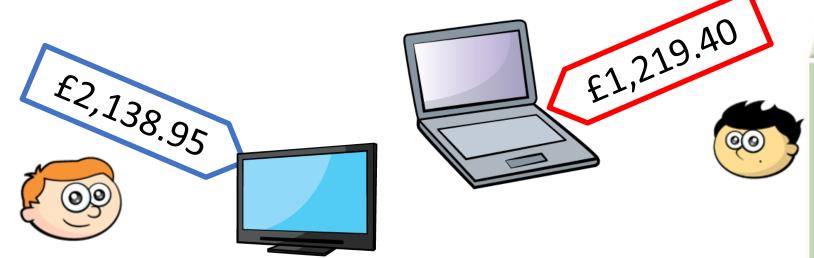


How?! I haven't written the numbers yet!

STOP! I already know he can afford it.







I rounded £2,138.95 to £2,100

I rounded £1,219.40 to £1,200



£2,100 plus £1,200 is £3,300 so Ron has enough money



# An estimate – a sensible but not exact answer.



$$7,116 - 3,655 =$$

7,116 rounded to the nearest 1,000 is <u>7,000</u>

3,655 rounded to the nearest 1,000 is 4,000

$$7,000 - 4,000 = 3,000$$

3,655 rounded to the nearest 100 is 3,700

$$7,100 - 3,700 = 3,400$$



Which is the more accurate estimate?



	Shop A	Shop B	Shop C
Morning	£4,000	£6,231	£2,002
Afternoon	£11,613	£9,199	£14,508

Estimate which shop made the most money.

Shop C

Shop A: 4,000 + The too dready 16,000 rounded to the

Shop B: 6,000 + 12,000 ±,000 15,000



Shop C: 2,000 + 15,000 = £ 17,000

Have a think



Did shop B make more or less than £ 15,000?

More

## YOUR TURN

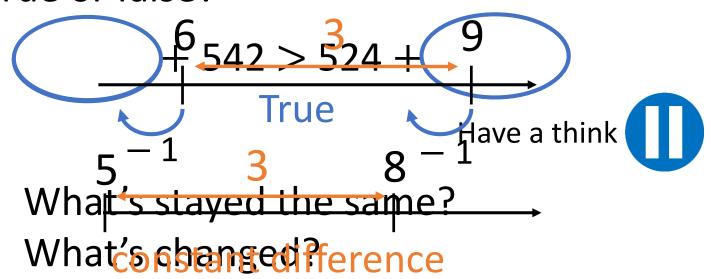
Have a go at questions 1 - 5 on the worksheet







#### True or false?



What's stayed the same? What's changed?

## YOUR TURN

Have a go at the rest of the worksheet





INVERSE
OPERATIONS
(ADDITION AND
SUBTRACTION)



## GET READY





#### 1) Estimate the answer to:

$$6,212 - 255 =$$

2) Round 176,388 to the nearest 10,000

3) Round 450 to the nearest 1,000

4) Calculate 5,993 + 4,011 =



1) Estimate the answer to:

$$6,212 - 255 =$$
 $6,200 - 300 = 5,900$ 

2) Round 176,388 to the nearest 10,000 180,000

3) Round 450 to the nearest 1,000

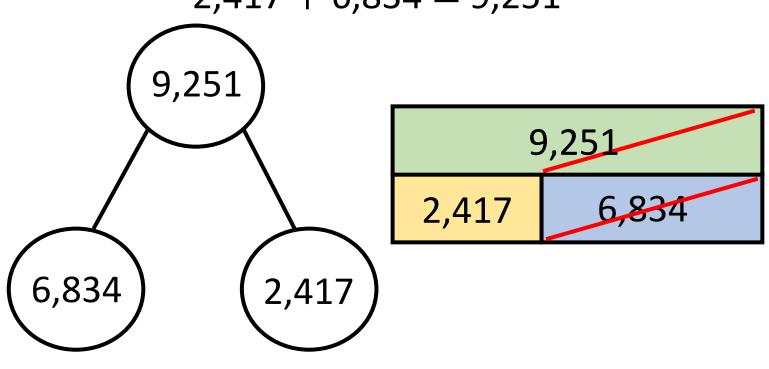
4) Calculate 5,993 + 4,011 = 10,004

# LET'S LEARN





$$2,417 + 6,834 = 9,251$$



$$6,834 + 2,417 = 9,251$$

$$9,251 - 6,834 = 2,417$$

$$9,251 - 2,417 = 6,834$$

Have a think

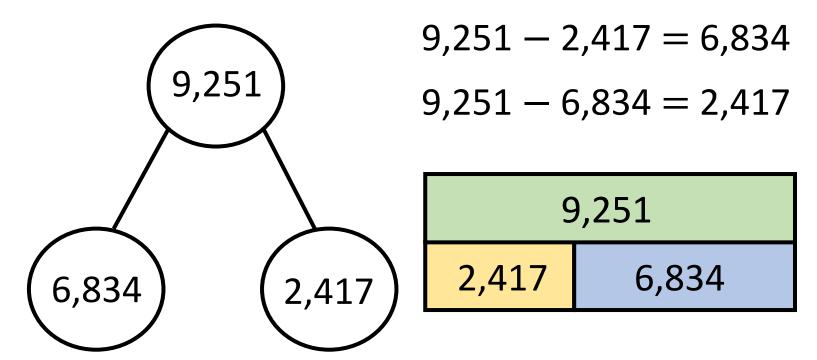




#### **Fact family**

$$2,417 + 6,834 = 9,251$$

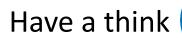
$$6,834 + 2,417 = 9,251$$



Addition is the inverse of subtraction Subtraction is the inverse of addition



$$92,733 - 35,904 = 56,829$$



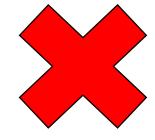


$$92,733 - 56,829 = 35,904$$

$$35,904 + 56,829 = 92,733$$

$$56,829 + 35,904 = 92,733$$

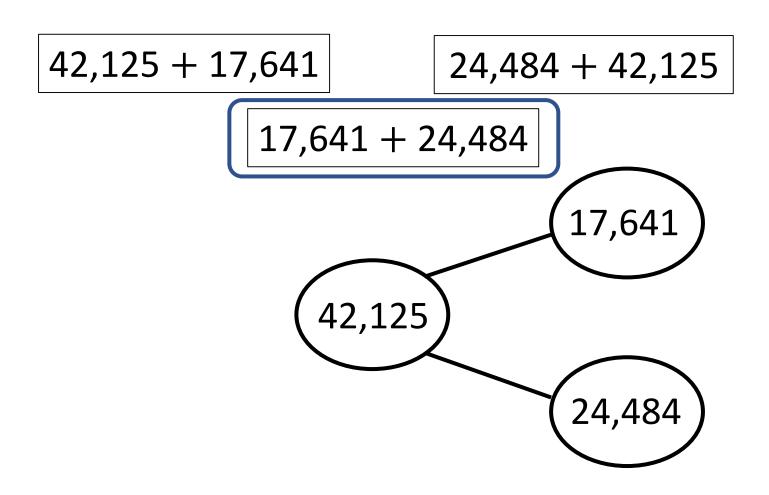
$$92,733 + 35,904 = 56,829$$





$$42,125 - 17,641 = 24,484$$

Which addition is the inverse of this subtraction?



### YOUR TURN

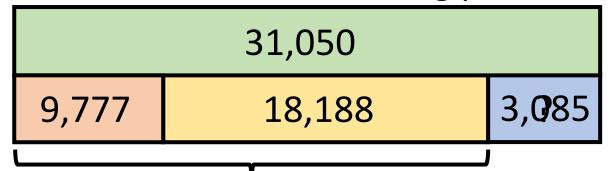
Have a go at the questions 1 - 5 on the worksheet





#### Calculate the missing part





27,965

Have a think

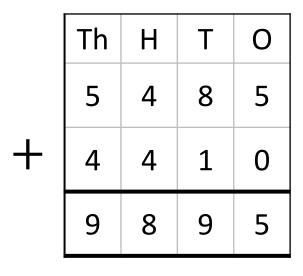


	TTh	Th	Н	Т	0	
	1	8	1	8	8	
+		9	7	7	7	
	2	7	9	6	5	
	1		1	1		I

TTh	Th	H 1/9	T 14	0
2	10 <b>1</b>	20	<b>1</b> 4 <b>8</b>	0
2	7	9	6	5
0	3	0	8	5



#### Use an inverse operation to check this addition.



	Th	Н	Т	0
	9	8	9	5
-	5	4	8	5

Is there another subtraction we could use?

Th	Н	Т	0
9	8	9	5
4	4	1	0

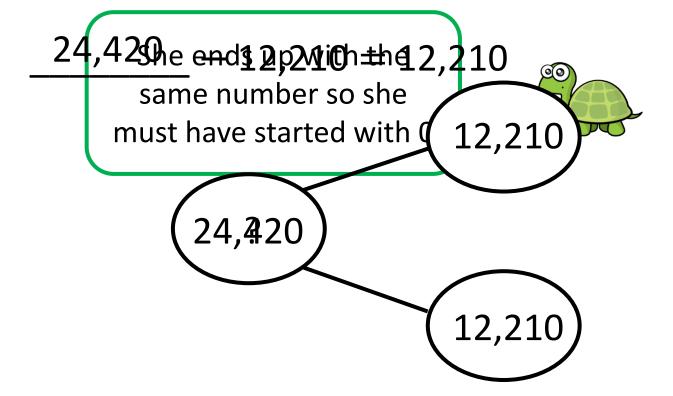






# When I subtract 12,210 from my number I get 12,210

What was Dora's starting number? 24,420



### YOUR TURN

Have a go at the questions 6 - 8 on the worksheet





MULTI-STEP
ADDITION AND
SUBTRACTION
PROBLEMS



## GET READY





1) "Teddy scores 74 points. Dora scores 103 points.

How many more points does Dora score than Teddy?"

What operation is needed to answer this question?

2) Complete the fact family:

3) Round 95,032 to the nearest 10,000



1) "Teddy scores 74 points. Dora scores 103 points.

How many more points does Dora score than Teddy?"

What operation is needed to answer this question?

Subtraction

2) Complete the fact family:

$$454 + 352 = 806$$
  $806 - 454 = 352$   
 $352 + 454 = 806$   $806 - 352 = 454$ 

3) Round 95,032 to the nearest 10,000 100,000

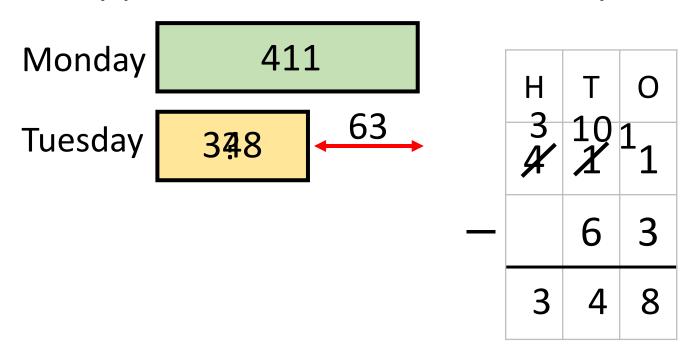
# LET'S LEARN





On Monday, Richard scores 411 points.
On Tuesday he scores 63 points fewer than on Monday.

How many points does he score on Tuesday? 348



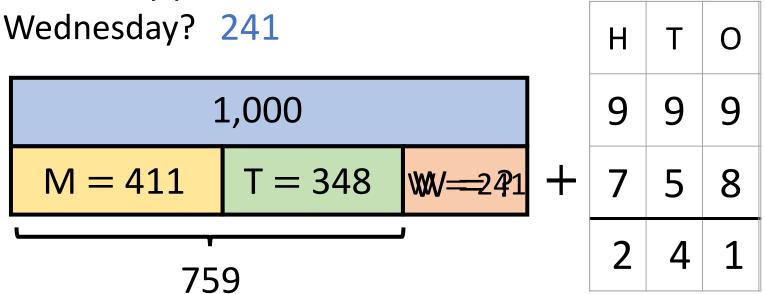


On Monday, Richard scores 411 points.

On Tuesday he scores 63 points fewer than on Monday.

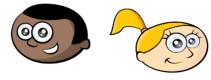
How many points does he score on Tuesday? 348 Richard needs to score 1,000 points by the end of Wednesday.

How many points does he need to score on

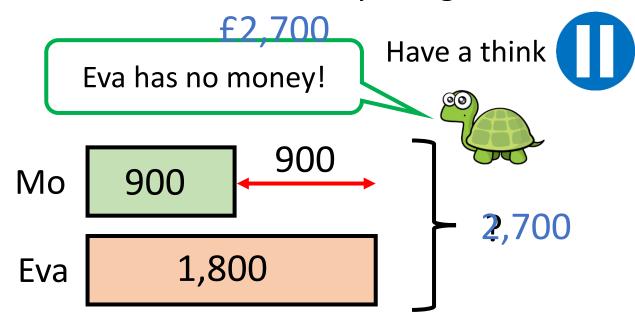




## Eva and Mo each have some money. Mo has £900



The difference between the two amounts is £900 What is the sum of their money altogether?



$$900 + 1,800 = 2,700 900 + 900 = 1,800$$

## YOUR TURN

Have a go at questions 1 - 4 on the worksheet

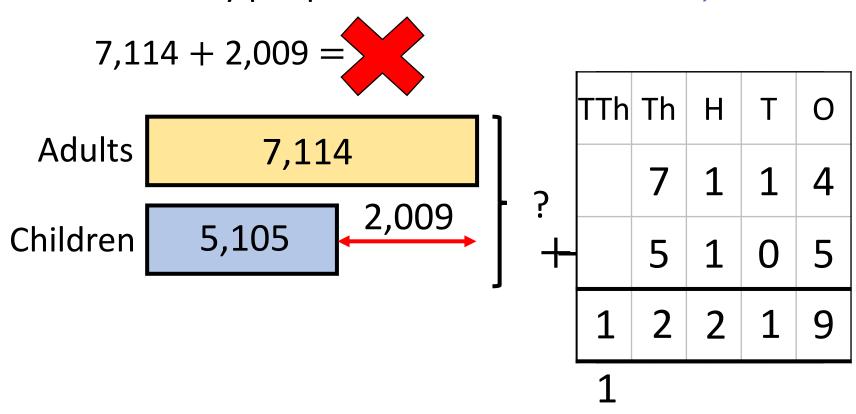






At a cricket match there are 7,114 adults in the crowd.

There are 2,009 fewer children than adults. How many people attend the match? 12,219





Two different numbers sum to 8,264

One of the numbers is 1,444 greater than the other.

What are the two numbers? B = 3,410 A = 4,8543 and 4 sum to 7

A 3,410 1,444 Have a think 0 8,264 - 1,444 = 6,820 B 3,410 1,444

$$3,416,820,442 = 3,850$$

## YOUR TURN

Have a go at questions 5 - 8 on the worksheet



