

Tuesday 16th June Y4 Maths

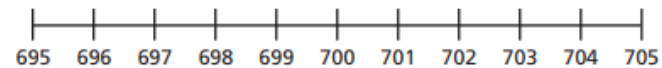
For Maths today, follow the link and watch the video: <https://vimeo.com/428003455> Then complete the questions below.

Efficient subtraction

1 a) Use the column method to work out $704 - 696$

		H	T	O	
		7	0	4	
	-	6	9	6	

b) Count on the number line to work out $704 - 696$



c) Which method do you prefer? Why?

2 Complete the subtractions by counting on.

a) $902 - 897 =$

b) $1,902 - 1,894 =$

c) $2,027 - 1,999 =$

3 a) Use column subtraction to complete the calculations.

		H	T	O	
		7	0	0	
	-	3	4	8	

		Th	H	T	O
		6	0	0	0
	-	2	1	4	5

What do you notice?

b) Rosie's method

		H	T	O	
		6	9	9	
	-	3	4	8	
		3	5	1	

$$351 + 1 = 352$$

so $700 - 348 = 352$

Use Rosie's method to work out $6,000 - 2,145$

c) Amir's method

	H	T	O
	7	0	0
-	3	4	8
	3	5	2

		H	T	O	
		6	9	9	
	-	3	4	7	
		3	5	2	

Use Amir's method to work out $6,000 - 2,145$

d) Whose method do you prefer, Rosie's or Amir's?


4 Use the column method to work out the subtractions.

a) $500 - 341$

c) £3,000 – £2,782

b) $1,000 - 729$

d) $10,000 \text{ mm} - 7,302 \text{ mm}$



5 A theme park has 3,002 light bulbs.

1,785 of the light bulbs are blue.

How many bulbs are not blue?

Use a method where you subtract 3 from each number.

1

6 Eva is working out $7,385 - 1,999$

$$7,385 - 2,000 = 5,385$$

$$7,385 - 1,999 = 5,386$$



I subtracted 2,000 from 7,385 and then added one on.

a) Explain why Eva's method works.

b) Explain a different method that Eva could have used.

The method should involve changing each number before subtracting.

c) Work out the subtractions.

$4,512 - 2,999 =$

$5,147 - 997 =$

$3,704 - 2,998 =$

Subtraction word problems

1. In the library, there are 6054 science books on the top shelf, and 425 science books on the bottom shelf. How many science books are there altogether?	2. There are 1485 picture books in the library. On Monday 233 were taken out. How many picture books are left?
3. Two classes of children collected marbles. One class took out 3672 marbles, the second class had 6820. a) How many marbles did both classes have? b) How many more marbles did the second class have?	4. There were 9852 pieces of sports equipment. Sadly, 2329 pieces were ruined in a flood. How many are left?
5. There were 39512 books in a library. 1500 each book out a book. How many books were left in the library?	6. In a lorry, there were 8512 pieces of fruit. 1235 were bananas and 3621 were oranges. How many apples were there in the lorry?
7. 18362 West Ham fans and 32412 Chelsea fans attended a match. a) How many fans watched the match? b) How many more Chelsea fans were there?	8. A gallery had 10325 visitors in September. In June they had 25630 visitors. How many more people visited the gallery in June than September?

Efficient subtraction

- 1 a) Use the column method to work out $764 - 496$

H	T	O
7	6	4
-	4	9
	6	5

- b) Count on the number line to work out $764 - 496$



- c) Which method do you prefer? Why?

Justified – efficient

- 2 Complete the subtraction by counting on.

$$a) 902 - 887 = \boxed{15}$$

$$b) 1,982 - 1,884 = \boxed{98}$$

$$c) 3,027 - 1,999 = \boxed{1,028}$$

- d) Amir's method

H	T	O
7	6	4
-	4	9
	6	5

Use Amir's method to work out $4,000 - 3,146$

4	0	0	0
-	3	1	4
	6	8	5

- e) Whose method do you prefer, Rosie's or Amir's?

- 3 Use the column method to work out the subtractions.

$$a) 500 - 341$$

5	0	0
-	3	4
	6	6

$$b) 43,000 - 42,782$$

4	3	0	0
-	4	2	7
	0	7	2

$$c) 10,000 - 726$$

1	0	0	0
-	7	2	6
	9	7	4

$$d) 10,000 \text{ min} - 3,342 \text{ min}$$

1	0	0	0
-	3	3	4
	6	6	6

- 4 Use column subtraction to complete the calculations.

H	T	O
7	6	4
-	4	9
	6	5

What do you notice?

You have to make multiple exchanges in pairs.

- b) Rosie's method

H	T	O
7	6	4
-	4	9
	6	5

$$351 + 1 = 352$$

$$\text{so } 700 - 348 = 352$$

Use Rosie's method to work out $4,000 - 3,146$

4	0	0	0
-	3	1	4
	6	8	5

- 1 A theme park has 3,000 light bulbs. 1,785 of the light bulbs are blue.

How many bulbs are not blue?

Use a method where you subtract 3 from each number.

$$1,217$$

$$3,000 - 1,785 = 1,215$$

$$7,385 - 2,000 = 5,385$$

$$7,385 - 1,999 = 5,386$$

- 2 Explain why Leo's method works.

Leo is subtracting 3 from both 3,000 and 1,785.

$$3,000 - 3 = 2,997$$

$$1,785 - 3 = 1,782$$

- 3 Explain a different method that Leo could have used.

The method should involve changing each number before subtracting.

Leo could add 1 to 3,000 to make 3,001 and then subtract 1,785 from 3,001.

$$3,001 - 1,785 = 1,216$$

- 4 Work out the subtractions.

$$4,517 - 3,999 = 1,518$$

$$5,147 - 997 = 4,150$$

$$3,704 - 2,998 = 706$$