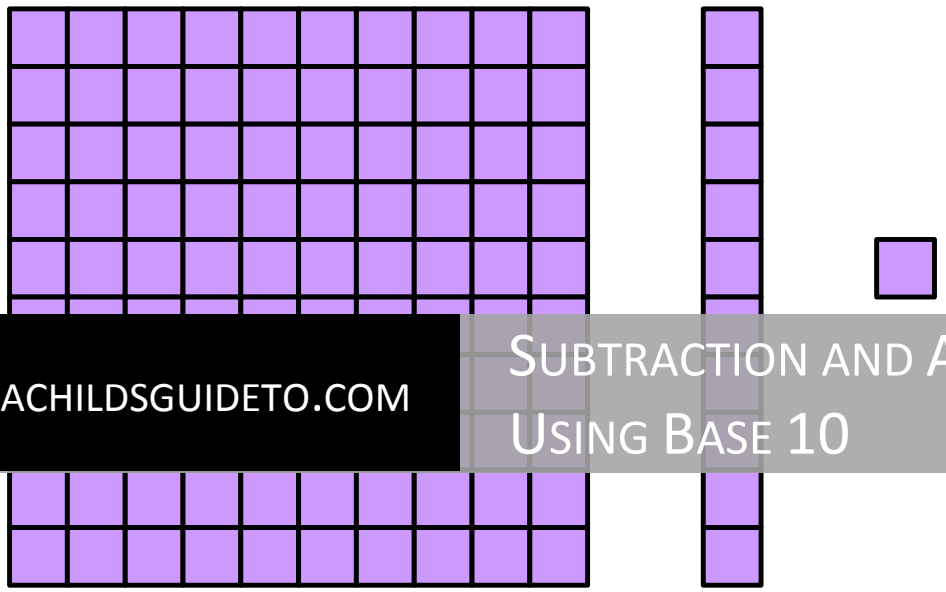

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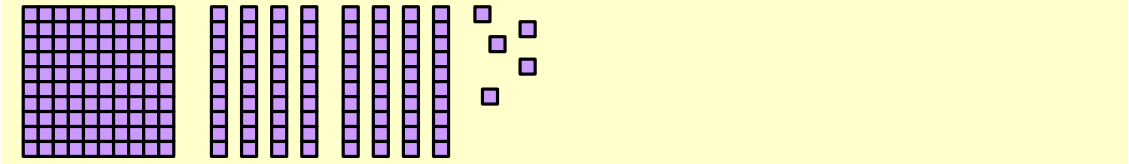
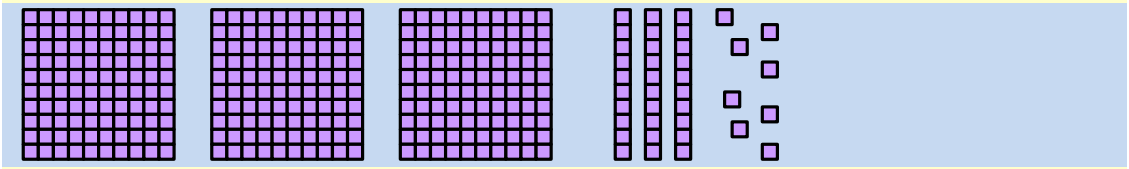
SUBTRACTION AND ADDITION USING BASE 10

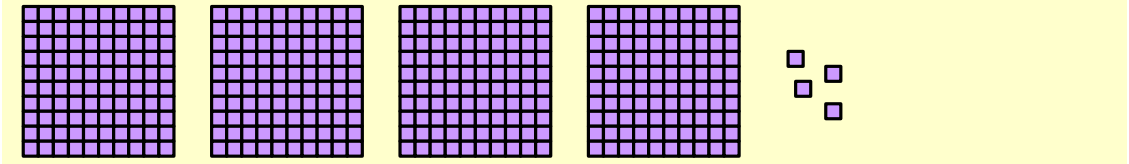
Level 2 Solving Problems Using Base 10 Apparatus

A How many do these represent?

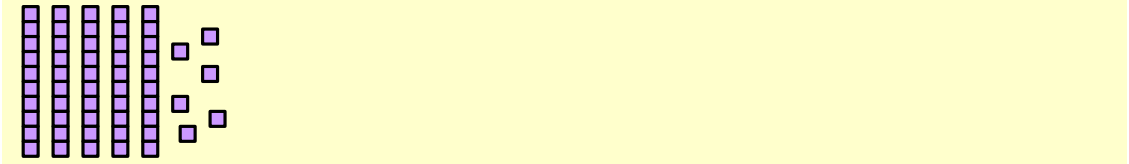
1

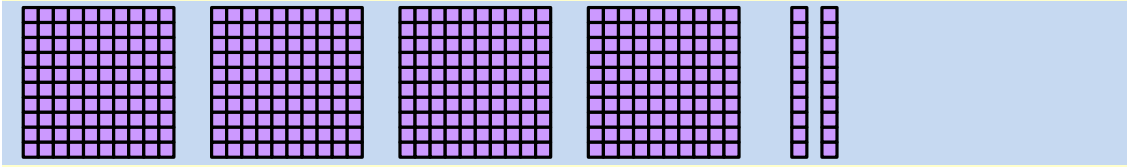
2 

3 

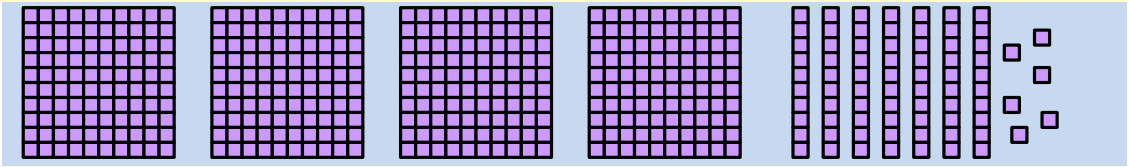
4 

5

6 

7 

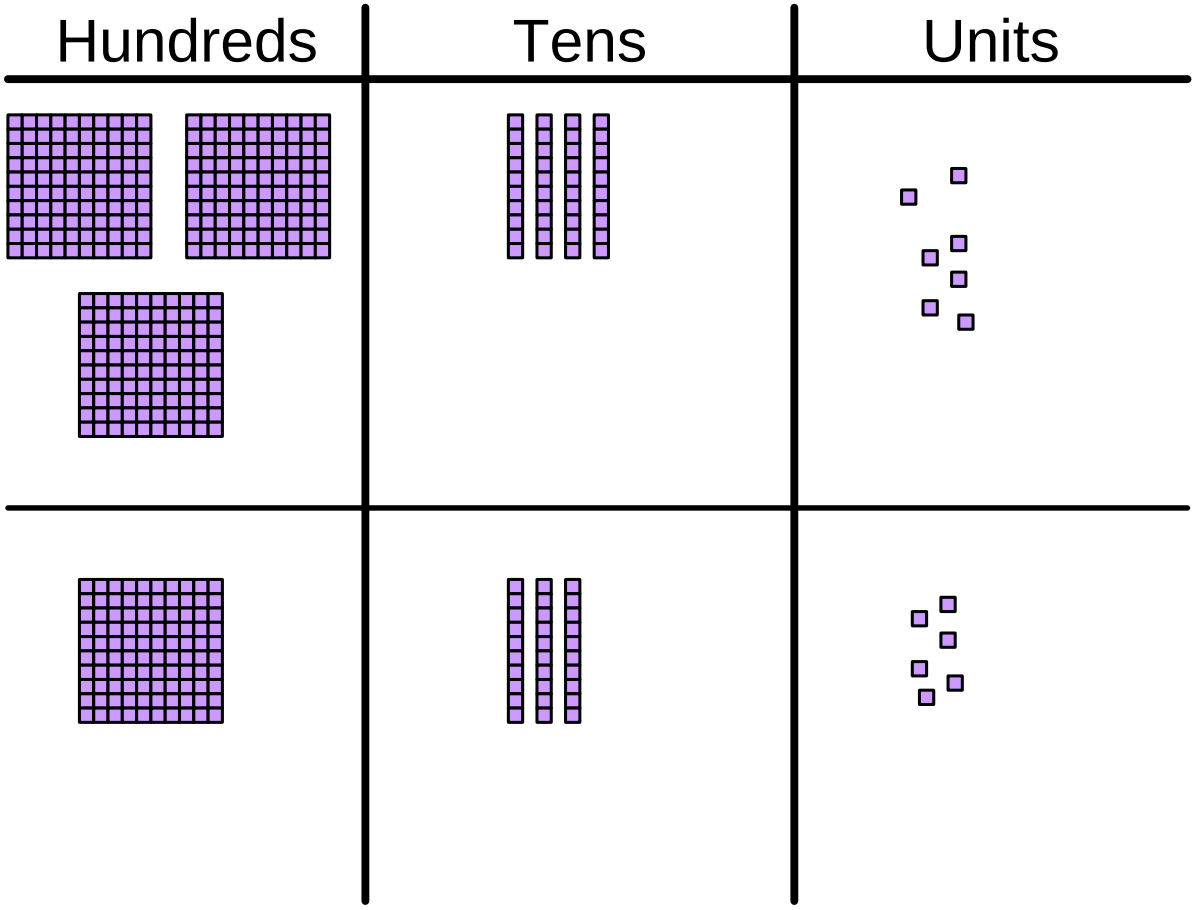
8

9 

10

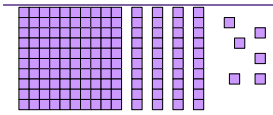
B Using Base 10 Apparatus to Add numbers.

To add together 347 + 136, set out the apparatus like this:

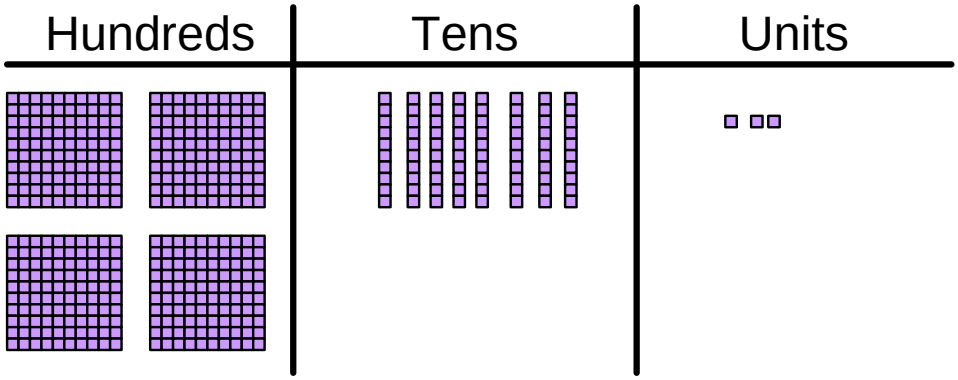


Add together the units column, which in this case is 7 + 6. This will make 13. Group ten of the units together and exchange it for a 10 stick and place this in the tens column.

Add together the tens column, which in this case is 40 + 30 + 10. This makes a total of 80. So we are left with 80 + 3 which makes 83 altogether.



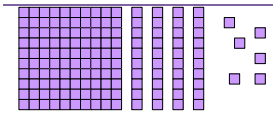
Add together the hundreds column, which in this case makes 300 + 100 = 400. So the overall total should be as follows:



So we end up with an answer of 400 + 80 + 3 = 483.

Now use the apparatus in a similar way to have a go at these sums:

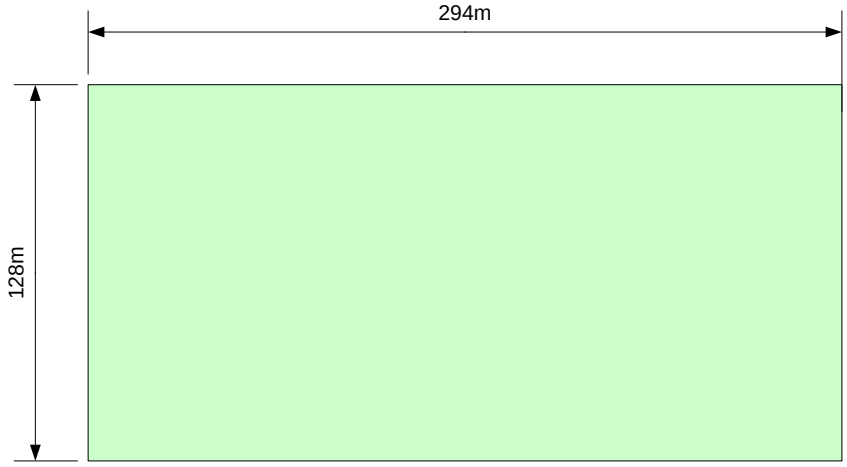
1	446 + 183 =		11	195 + 194 =	
2	248 + 329 =		12	314 + 436 =	
3	405 + 402 =		13	129 + 25 =	
4	210 + 78 =		14	110 + 256 =	
5	53 + 169 =		15	207 + 213 =	
6	175 + 493 =		16	168 + 480 =	
7	119 + 39 =		17	405 + 398 =	
8	333 + 233 =		18	180 + 420 =	
9	390 + 460 =		19	92 + 108 =	
10	65 + 268 =		20	444 + 147 =	



C. Use the apparatus to answer these word problems.

1. What is the total of 35m, 183m and 721m?

2. A farmer builds a fence round his oblong field. His field is 128m wide and 294m long. How long is the farmer's fence?



3. Another oblong field has a fence built round it. The length of the field is 308m and the width is 283m. What is the length of the fence?

4. Find the sum of 29, 28, 93, 92.

5. Fred went to the shop and bought a banana costing 24p, an apple costing 25p, a packet of sweets costing £1.41 and a tin of soup costing 85p. How much did Fred spend altogether?

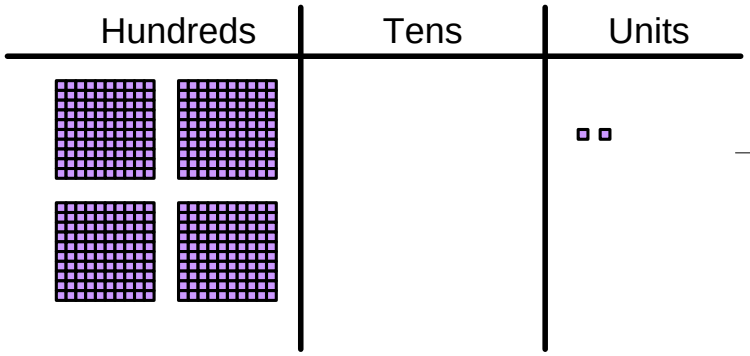
6. Ben and John had £2.48 and £4.64. How much did they have altogether?

7. John bought 74 raffle tickets. Mark bought 58 more. How many did they buy altogether?

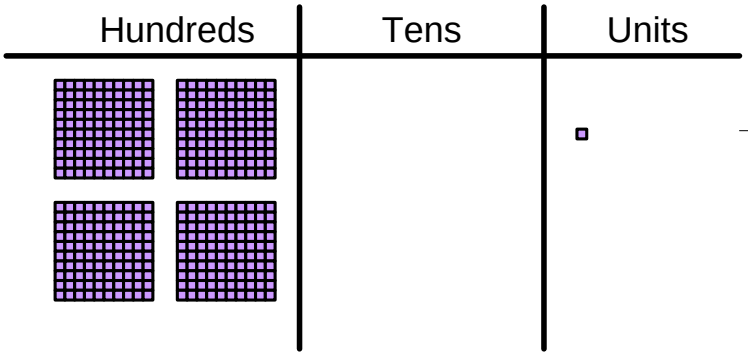
8. Add together 93, 482, 218 and 109.

D Use Base 10 Apparatus to Subtract One Number from Another.

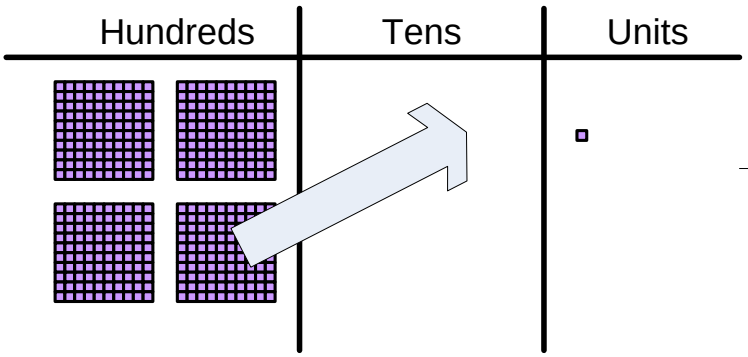
To subtract 402 - 81:



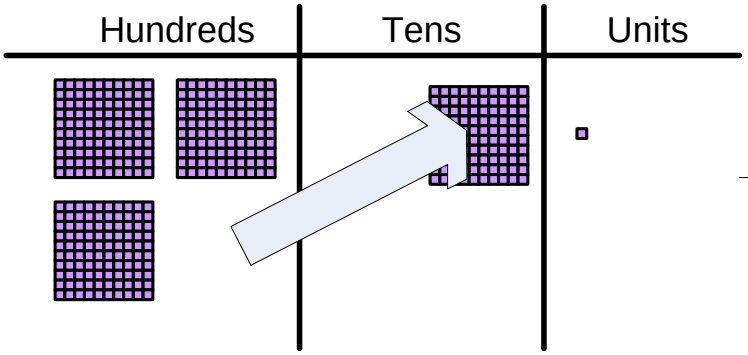
First, set up your question starting with the amount that comes first in your question, in this case, 402.



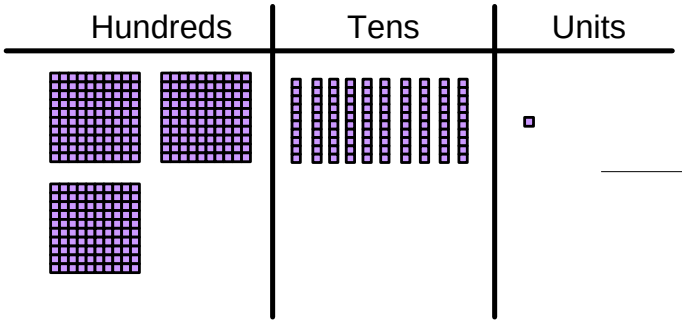
Secondly, look at your units column. You need to take 81 away in this case, so that is subtract 1 from the units column. Is there enough to do this? Well there are two so there are enough to subtract one.



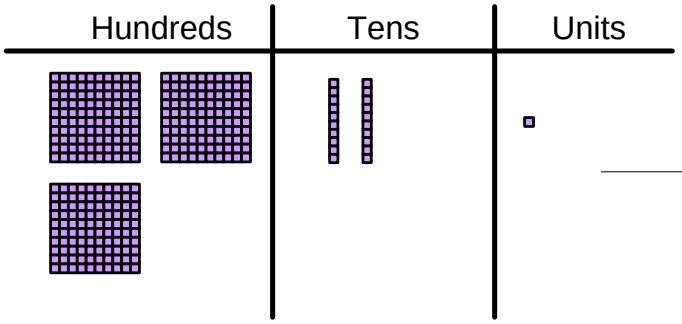
Now you need to look at the tens column. You need to take 80 away from this column. Are there enough sticks to remove 80? In this case there are not so you need to decompose one of the 100s.



Following this, you need to decompose the one 100 square to become ten 10 sticks.



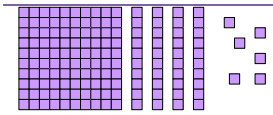
You can then remove 80 or eight ten sticks leaving 20 in the tens column.



So the final answer is 321.

Use the same method to answer these questions.

1	688	-	313	=	11	955	-	125	=
2	995	-	182	=	12	970	-	435	=
3	634	-	91	=	13	862	-	26	=
4	754	-	62	=	14	936	-	549	=
5	981	-	579	=	15	782	-	428	=
6	619	-	343	=	16	906	-	136	=
7	792	-	216	=	17	764	-	492	=
8	623	-	274	=	18	996	-	267	=
9	929	-	53	=	19	688	-	65	=
10	617	-	344	=	20	964	-	431	=



E Use the apparatus to answer these word problems.

1. John had 335 sweets. Bill had 72. How many more did John have than Bill?

2. Bill and Ben were flowers. Bill was 284cm high. Ben was 198cm high. How much taller than Ben was Bill?

3. Three sticks were 87cm long, 184 cm long and 29 cm long. How much longer was the longest stick than the shortest?

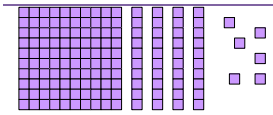
4. Carol had £7.39. Joe had £4.84. How much more did Carol have than Joe?

5. A rectangular field is 382m long and 96m wide. What is the difference between the field's length and width?

6. Three builders price up building a wall around a garden. There prices were:

Ethan Building Services	£184
Joe's Buildings	£199
Jacks Building Contractors	£296

What is the difference in price between each of the builders? (There are 3 answers to this question).

7. The Thames in England is 346 km long. The Nile is 6695 km long. The Danube is 2860km long. The Mississippi is 3766 km long. What is the difference in lengths between each of these rivers? (There are six answers to this question).

8. Subtract 3829 from 8400.