Model numbers

Model the following numbers using base 10 blocks and place value mat
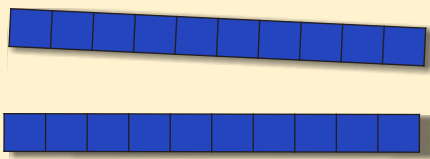
Example: 22

Tens	Ones

11   23   37

44   56   62

67   79   80

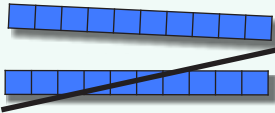83   91   99

Number operations

Use base 10 blocks to perform these additions and subtractions

Example: 22 - 10 = 12

2	2	1	2
Tens	Ones	Tens	Ones

Example: 12 + 15 = 27

	Tens	Ones
12		
15		

	Tens	Ones
27		

$$10 + 11 =$$

$$25 + 33 =$$

$$40 + 34 =$$

$$66 + 33 =$$

$$18 - 12 =$$

$$27 - 14 =$$
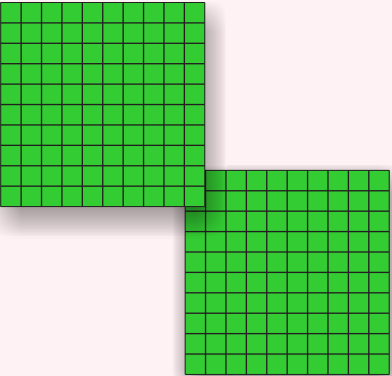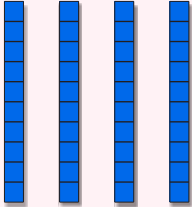
$$67 - 43 =$$

$$78 - 55 =$$

Place value

Model the following numbers using base 10 blocks and place value chart

Example: 241 = _2_ hundreds, _4_ tens and _1_ ones

Hundreds	Tens	Ones

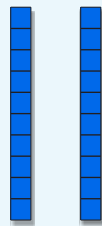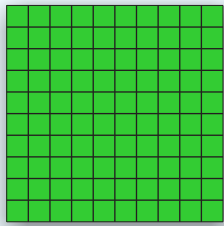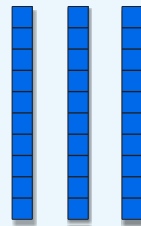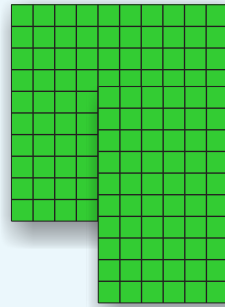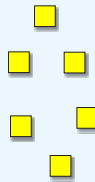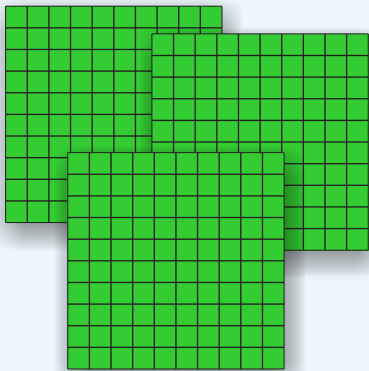| 110	135	287
213	246	380
306	458	493
526	563	604

Counting Hundreds, Tens and ones
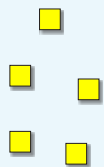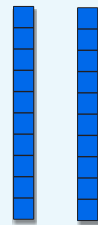
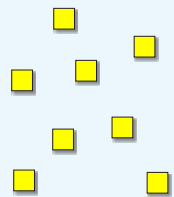Write the numbers represented by the base 10 blocks

How many ? 123
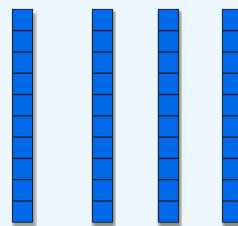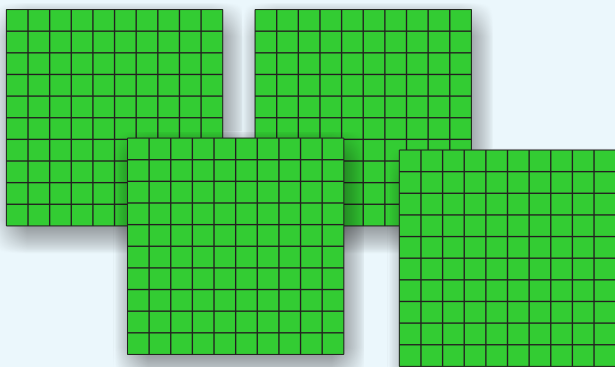
How many ? ____

How many ? ____
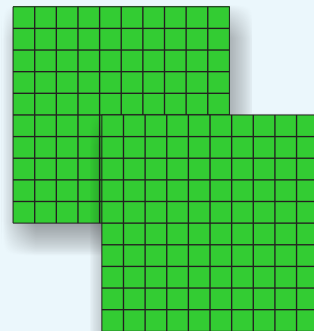
How many ? ____
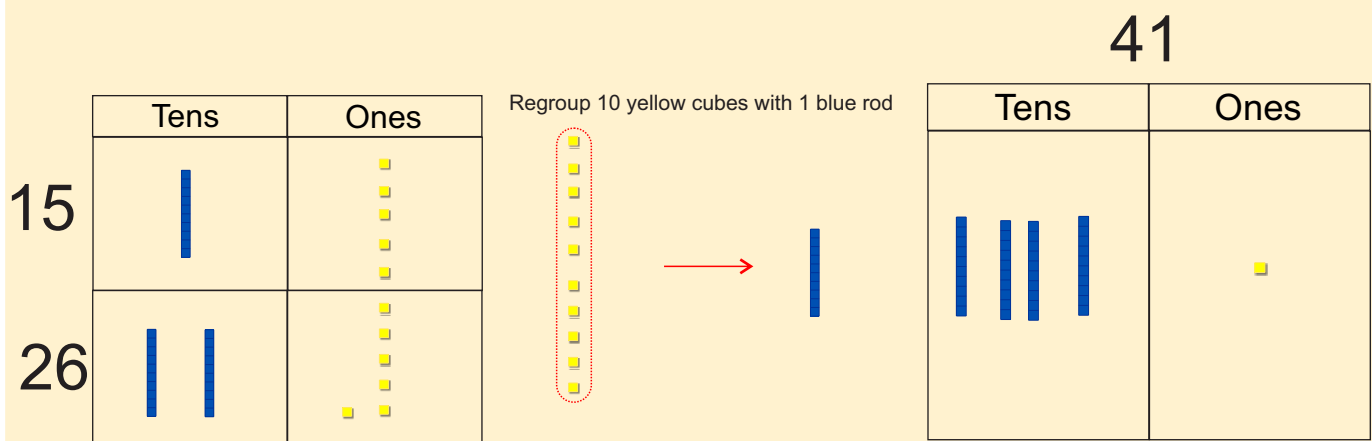
How Many ? ____

Addition with regrouping

Use base 10 blocks to add these 2 digit numbers with regrouping

Example   15 + 26 = 41

Tens	Ones
15	
26	

Regroup 10 yellow cubes with 1 blue rod

41

Tens	Ones

$$19 + 22 = $$

$$18 + 32 = $$

$$21 + 29 = $$

$$34 + 25 = $$

$$46 + 35 = $$

$$58 + 36 = $$
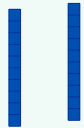
$$62 + 28 = $$

$$76 + 25 = $$

Subtraction with regrouping

Example- Take away 17 from 25

25 - 17 = 8
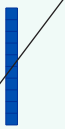
2   5

Tens	Ones

Regroup 1 ten as 10 ones

Tens	Ones

- 17

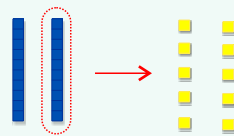| Tens	Ones

= 8

10	21	11	32
- 9	- 14	- 7	- 16
=	=	=	=

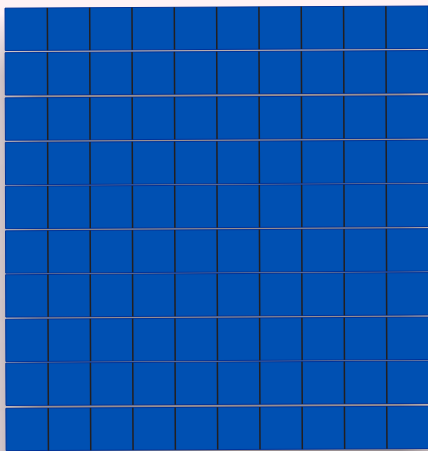| 35	41	56	62
- 26	- 19	- 38	- 46
=	=	=	=

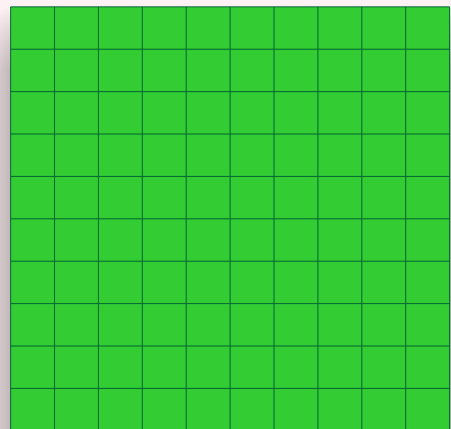# Regrouping with base 10 blocks

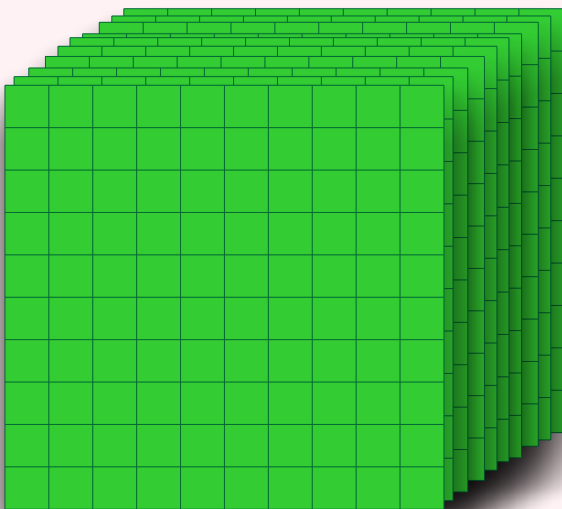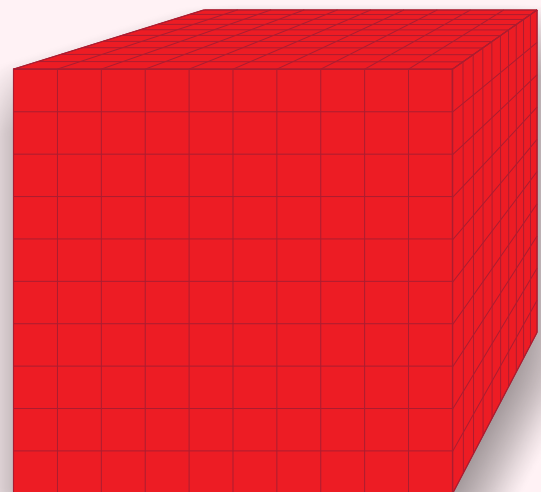10 yellow cubes   =   1 blue rod
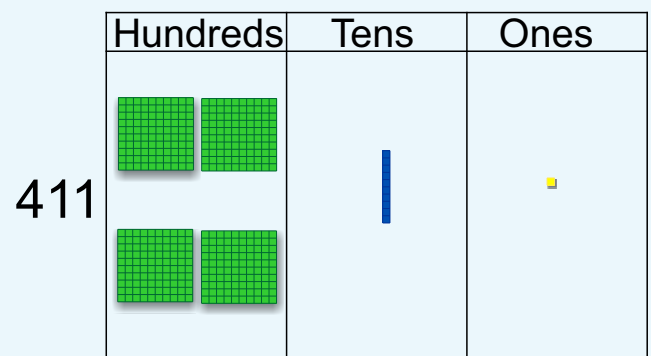
10 blue rods   =   1 green plate

10 green plates   =   1 red cube
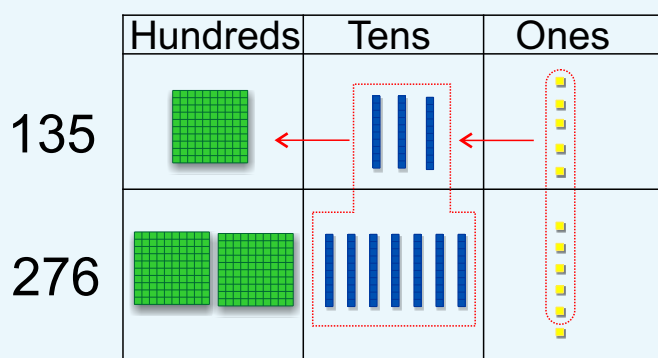
Addition with regrouping

Use base 10 blocks to add these 3 digit numbers with regrouping

Example   135 + 276 = 441

Hundreds	Tens	Ones
135		
276		

Hundreds	Tens	Ones
411		

```
   146          253          249
 + 174        + 288        + 372
 =            =            =
_____     _____     _____


   347          335          446
 + 379        + 476        + 483
 =            =            =
_____     _____     _____


   423          576          676
 + 578        + 636        + 789
 =            =            =
_____     _____     _____
```
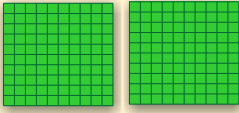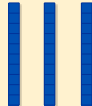
Subtraction with regrouping
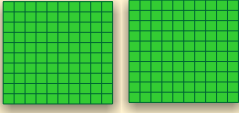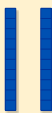
Example- Take away 176 from 235

235 - 176 = 59

2	3	5
Hundreds	Tens	Ones

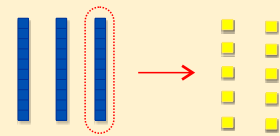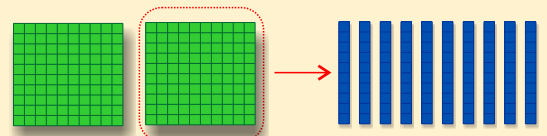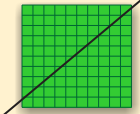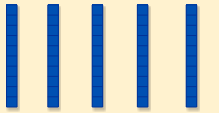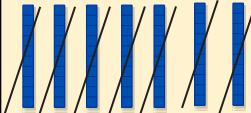Regroup 1 ten as 10 ones

Hundreds	Tens	Ones

Regroup 1 hundred as 10 tens

Hundreds	5 Tens	9 Ones

Subtraction with regrouping

Use base 10 blocks to subtract these 3 digit numbers

136 - 127 =	153 - 149 =	229 - 118 =
276 - 268 =	353 - 289 =	447 - 378 =
454 - 439 =	535 - 476 =	546 - 487 =
583 - 579 =	676 - 638 =	682 - 669 =

Multiplication

45 ✖ 22

40 + 5

10   10   10   10   1 1 1 1 1

20 → 10   10

+   2 → 1   1

	40	5	
20	800 8 green plates	100 10 blue rods	900
2	80 8 blue rods	10 10 yellow cubes	90
			990

Division

$$153 \div 3 = ?$$

There are 1 green, 5 blue rods and 3 units.
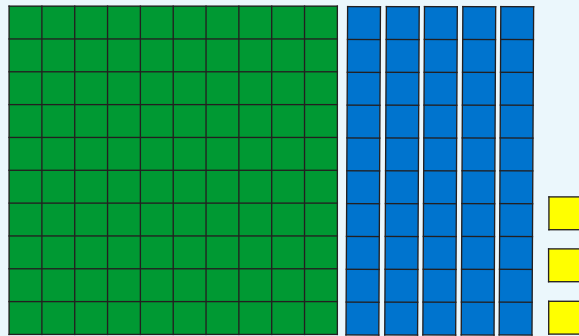
Replace the green plate with 10 blue rods.
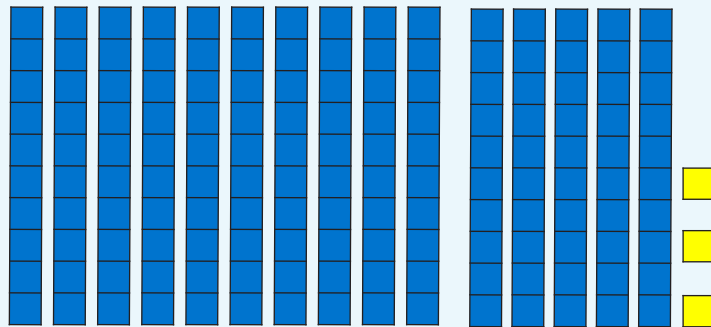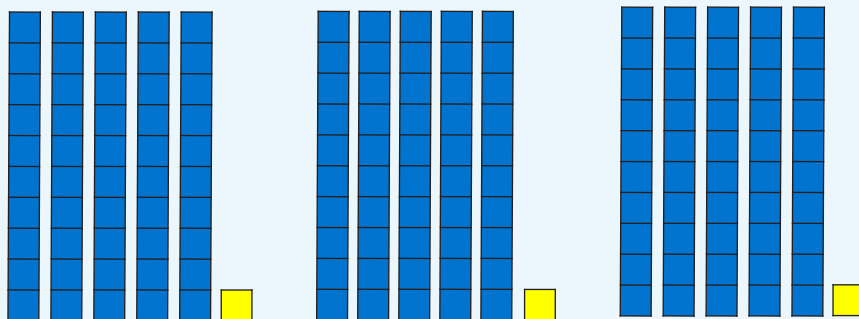
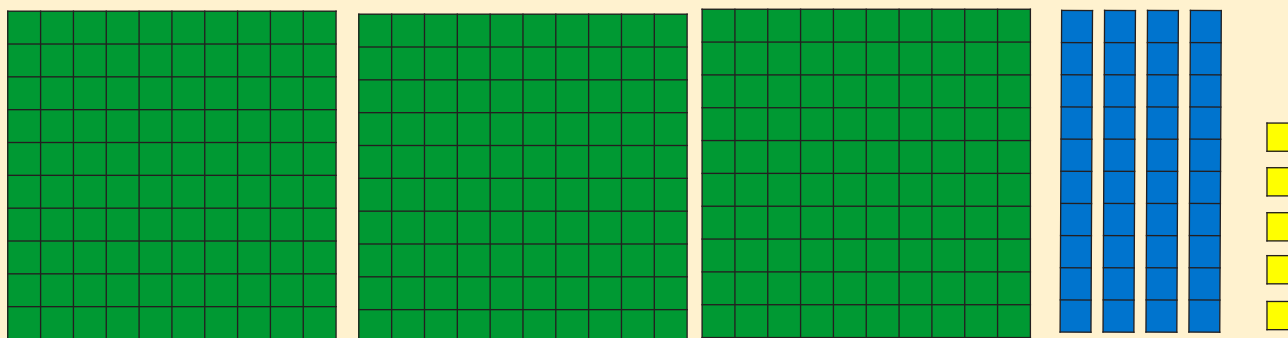Make 3 equal groups of blue rods and yellow cubes.

Each group has 5 blue rods and 1 yellow cube, so the answer is 51. $153 \div 3 = 51$

Division

345 ÷ 15 = 23

345

Step-1 Model 15 out of 345 as a column as shown.

Step-2 Use the remaining and complete the rectangle as shown.
(you will understand that one green plate has been replaced by 10 blue
rods and 1 blue rod is replaced by 10 yellow cubes)

Step-3 You will get the answer by counting the number of
columns as shown.

Step-3   23 is the answer

Step-1

Step-2