

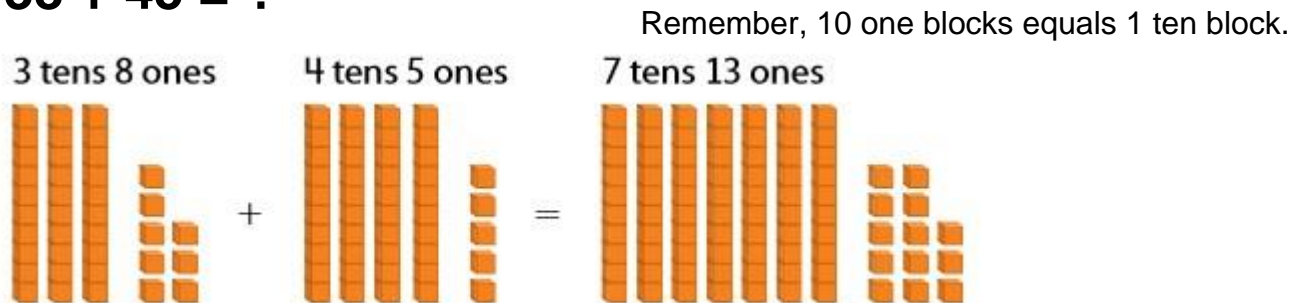
2nd Grade: Regrouping in addition and subtraction

Regrouping is the current term for carrying in addition and borrowing in subtraction. In both operations, it simply means that either a ten is changing or a group of ones is changing. Below are some strategies that help students see what is happening when these place values are regrouped. These strategies are taught first so that students will understand what is happening when we simply stack to add or subtract.

Addition with Regrouping

Base-Ten Blocks

$$38 + 45 = ?$$



When adding, always start in the ones place. There are 8 ones in 38 and 5 ones in 45. $8 \text{ ones} + 5 \text{ ones} = 13 \text{ ones}$

Then add the tens. There are 3 tens in 38 and 4 tens in 45. $3 \text{ tens} + 4 \text{ tens} = 7 \text{ tens}$

That results in 7 tens and 13 ones, which equals the amount of 83. However, when there is a group of 10 ones, they must be regrouped into a ten because $10 \text{ ones} = 1 \text{ ten}$. $13 \text{ ones} = 1 \text{ ten and } 3 \text{ ones}$

So, 7 tens and 13 ones = 8 tens and 3 ones = 83

Tens and Ones

$$54 + 28 = ?$$

$$\begin{array}{r} 54 = 5 \text{ tens and } 4 \text{ ones} \\ + 28 = 2 \text{ tens and } 8 \text{ ones} \\ \hline \underline{\quad} = 7 \text{ tens and } 12 \text{ ones} = 8 \text{ tens and } 2 \text{ ones} = 82 \\ \quad \quad \quad \swarrow \quad \searrow \\ \quad \quad \quad 1 \text{ ten} \quad 2 \text{ ones} \end{array}$$

Note: 7 tens and 12 ones also equals 82

Always start in the ones place.

$4 \text{ ones} + 8 \text{ ones} = 12 \text{ ones}$

Regroup 12. $12 = 1 \text{ ten and } 2 \text{ ones}$

Stack and Add

$$46 + 39 = ?$$

$$\begin{array}{r} 1 \quad \quad 1 \\ 46 \quad \quad 46 \\ + 39 \quad \quad + 39 \\ \hline 5 \quad \quad 85 \end{array}$$

Start in the ones place. $6 + 9 = 15$
The 5 stays in the ones place, and we regroup the 1 to the tens place.

Then add the tens column.
 $1 + 4 + 3 = 8$
 $46 + 39 = 85$

2nd Grade: Regrouping in addition and subtraction

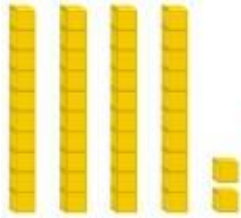
Subtraction with Regrouping

Base Ten Blocks

$$42 - 15 = ?$$

42 is the whole number and equals 4 tens and 2 ones.
 15 is the part being subtracted and equals 1 ten and 5 ones.
 To subtract showing base ten blocks, show the whole number in tens and ones.

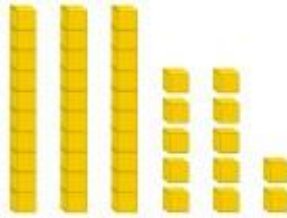
42



4 tens 2 ones

→

42



3 tens 12 ones

Remember, 1 ten block equals 10 one blocks.

Start in the ones place.
 42 has 2 ones. 15 has 5 ones.
 We need to subtract 5 ones.
 2 - 5; We cannot do that.
 We need to regroup 1 ten block into 10 one blocks so that we have a larger amount of ones to subtract from. After regrouping, we have 3 tens and 12 ones.
 12 ones - 5 ones = 7 ones
 3 tens - 1 ten = 2 tens; so 42 - 15 = 27

Tens and Ones

$$65 - 38 = ?$$

65 = 6 tens and 5 ones
 - 38 = 3 tens and 8 ones

Start in the ones place.
 5 ones - 8 ones can't be done.
 Regroup 1 ten into 10 ones.

5 tens 15 ones
 65 = ~~6~~ tens and ~~5~~ ones
 - 38 = 3 tens and 8 ones

We had 6 tens, but regrouped 1. Now we have 5 tens.
 We had 5 ones but got 10 more after regrouping. Now we have 15 ones.

5 tens 15 ones
 65 = ~~6~~ tens and ~~5~~ ones
 - 38 = 3 tens and 8 ones

___ = 2 tens and 7 ones = 27

Now we can subtract the ones place. Then subtract the tens place.

Stack and Subtract

$$74 - 36 = ?$$

$$\begin{array}{r} 74 \\ - 36 \\ \hline \end{array}$$

Start in the ones place.
 4 minus 6 cannot be done. Remember this rhyme:
 More on the floor, go next door. (Regroup)
 More on top, don't have to stop. (Don't regroup.)

$$\begin{array}{r} 1 \ 14 \\ \cancel{7} \cancel{4} \\ - 36 \\ \hline 8 \end{array}$$

7 tens, regroup 1. Now we have 6 tens.
 That 1 ten block regroups into 10 ones.
 Now we have 14 ones.
 Subtract the ones place first.

$$\begin{array}{r} 1 \ 14 \\ \cancel{7} \cancel{4} \\ - 36 \\ \hline 38 \end{array}$$