

SUBTRACTION WITHIN 1000

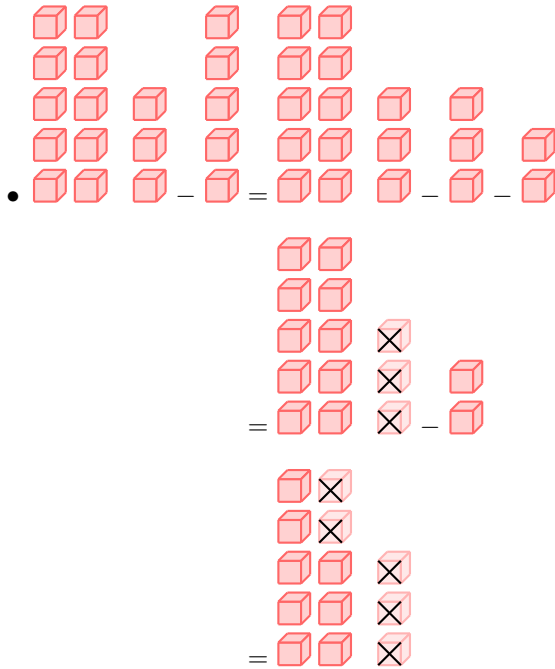
A WHAT IS SUBTRACTION?

A.1 SUBTRACTING NUMBERS WITHIN 20

Ex 1:

$$13 - 5 = \boxed{8}$$

Answer:

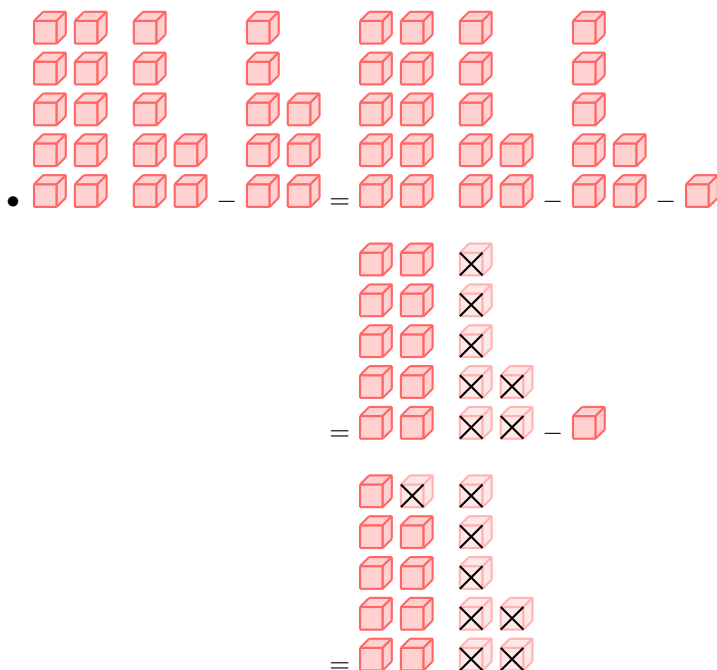


$$\begin{aligned} 13 - 5 &= 13 - 3 - 2 \\ &= 10 - 2 \\ &= 8 \end{aligned}$$

Ex 2:

$$17 - 8 = \boxed{9}$$

Answer:

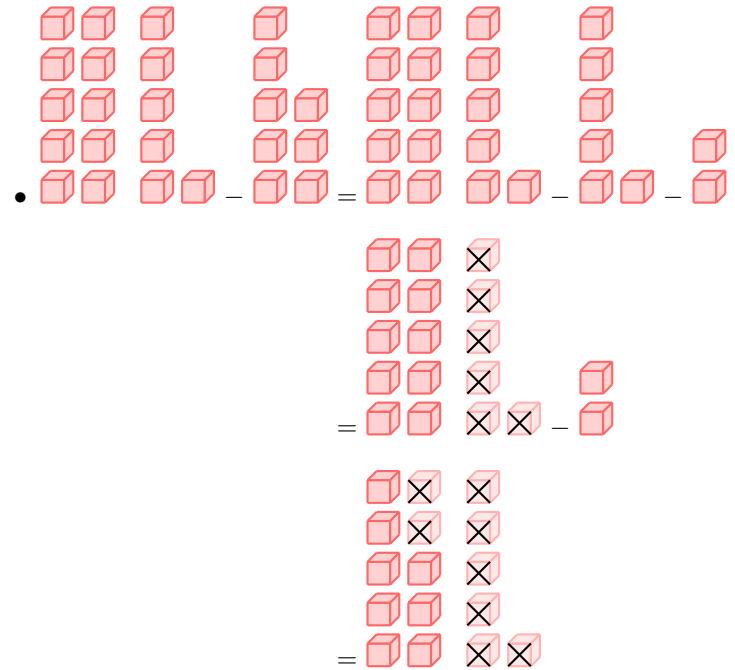


$$\begin{aligned} 17 - 8 &= 17 - 7 - 1 \\ &= 10 - 1 \\ &= 9 \end{aligned}$$

Ex 3:

$$16 - 8 = \boxed{8}$$

Answer:

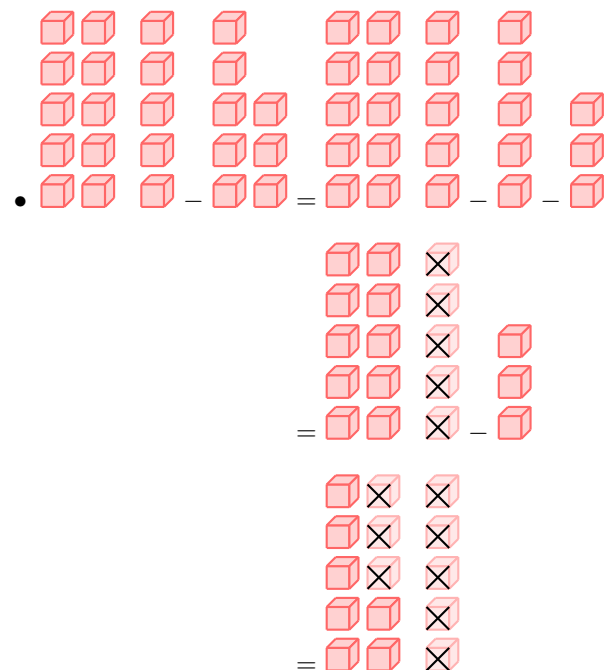


$$\begin{aligned} 16 - 8 &= 16 - 6 - 2 \\ &= 10 - 2 \\ &= 8 \end{aligned}$$

Ex 4:

$$15 - 8 = \boxed{7}$$

Answer:



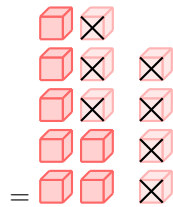
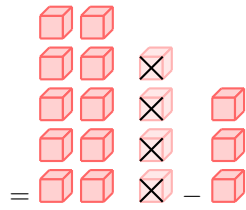
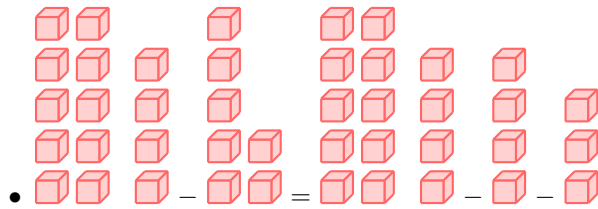
- $15 - 8 = 15 - 5 - 3$
 $= 10 - 3$
 $= 7$

- $18 - 9 = 18 - 8 - 1$
 $= 10 - 1$
 $= 9$

Ex 5:

$$14 - 7 = \boxed{7}$$

Answer:

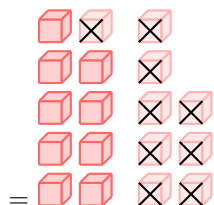
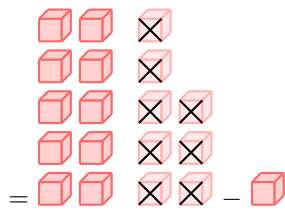
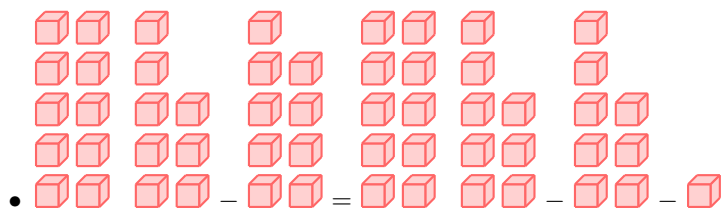


- $14 - 7 = 14 - 4 - 3$
 $= 10 - 3$
 $= 7$

Ex 6:

$$18 - 9 = \boxed{9}$$

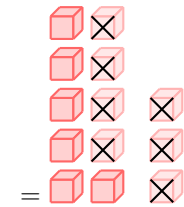
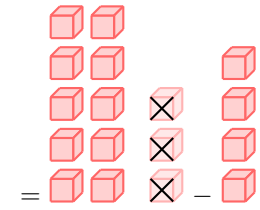
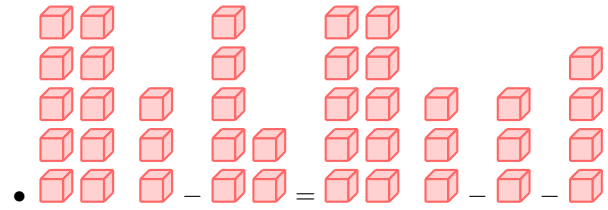
Answer:



Ex 7:

$$13 - 7 = \boxed{6}$$

Answer:

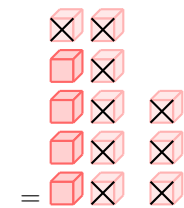
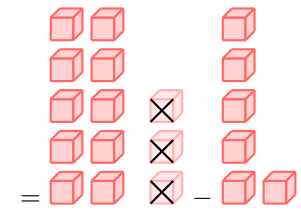
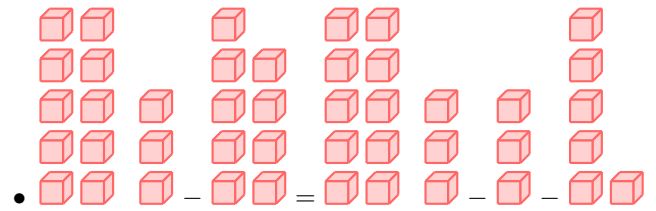


- $13 - 7 = 13 - 3 - 4$
 $= 10 - 4$
 $= 6$

Ex 8:

$$13 - 9 = \boxed{4}$$

Answer:

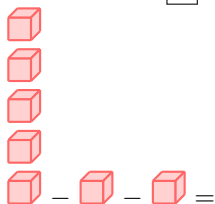


- $13 - 9 = 13 - 3 - 6$
 $= 10 - 6$
 $= 4$

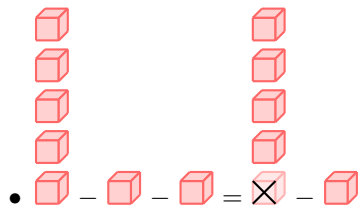
A.2 SUBTRACTING MULTIPLE NUMBERS

Ex 9:

$$5 - 1 - 1 = \boxed{3}$$



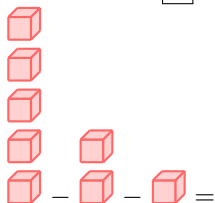
Answer:



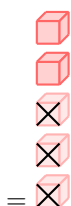
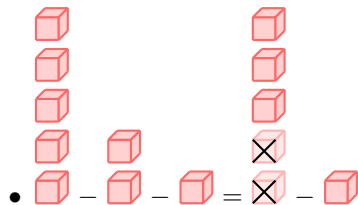
$$\bullet \quad 5 - 1 - 1 = 4 - 1 = 3$$

Ex 10:

$$5 - 2 - 1 = \boxed{2}$$



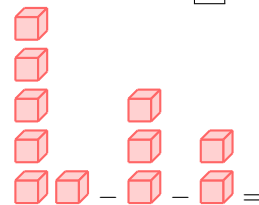
Answer:



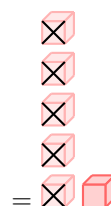
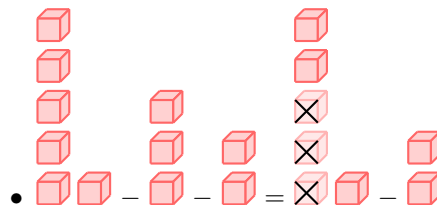
$$\bullet \quad 5 - 2 - 1 = 3 - 1 = 2$$

Ex 11:

$$6 - 3 - 2 = \boxed{1}$$



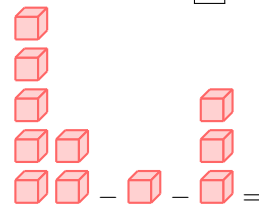
Answer:



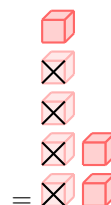
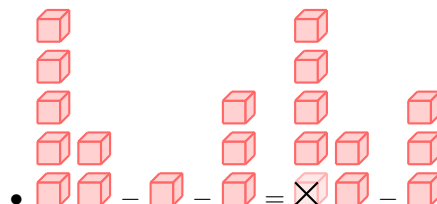
$$\bullet \quad 6 - 3 - 2 = 3 - 2 = 1$$

Ex 12:

$$7 - 1 - 3 = \boxed{3}$$



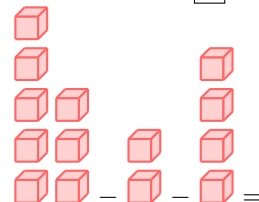
Answer:



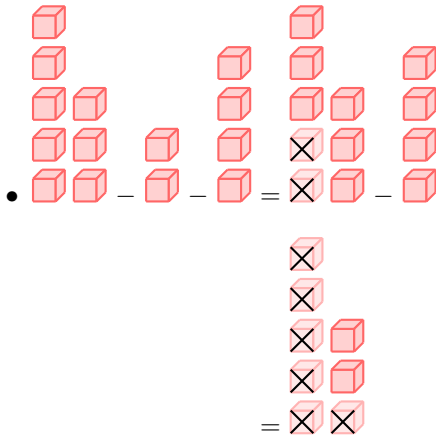
$$\bullet \quad 7 - 1 - 3 = 6 - 3 = 3$$

Ex 13:

$$8 - 2 - 4 = \boxed{2}$$

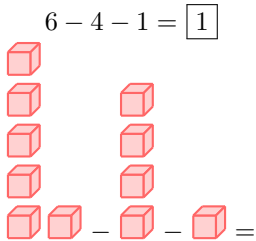


Answer:

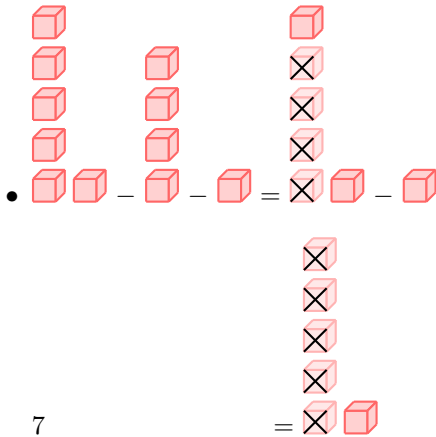


• $8 - 2 - 4 = 6 - 4 = 2$

Ex 14:

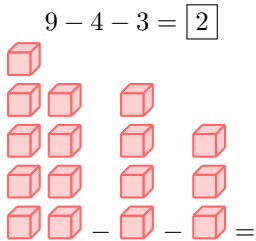


Answer:

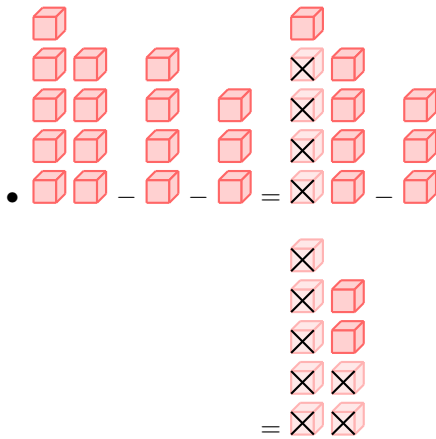


• $6 - 4 - 1 = 2 - 1 = 1$

Ex 15:



Answer:



• $9 - 4 - 3 = 5 - 3 = 2$

B AN ALTERNATIVE STRATEGY: COMPENSATION

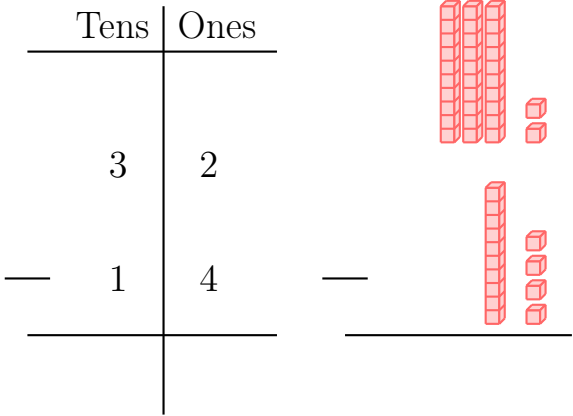
B.1 SUBTRACTING USING COLUMNS TO 100 WITH COMPENSATION

Ex 16:

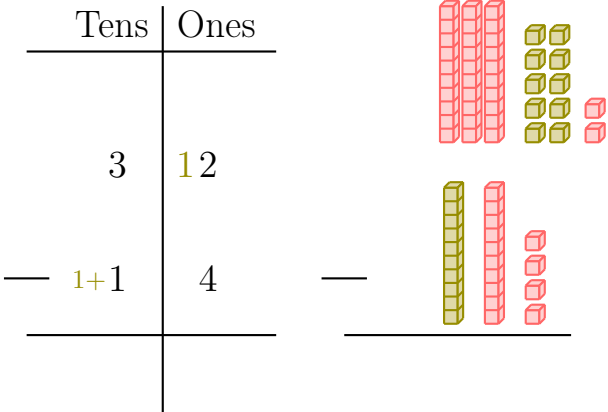
$$\begin{array}{r} 32 \\ - 14 \\ \hline 18 \end{array}$$

Answer:

- Step 1: Set up the subtraction



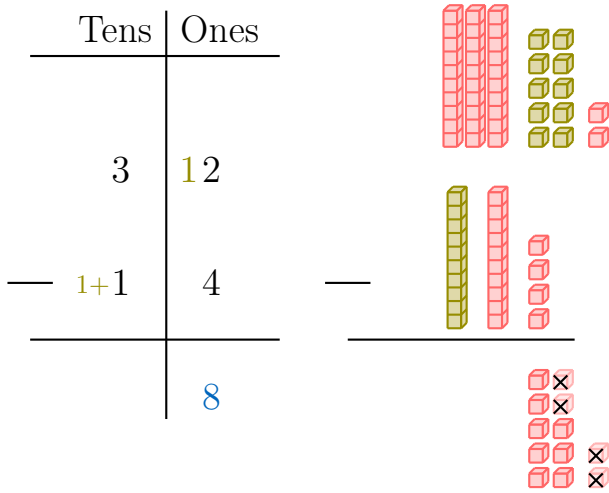
- Step 2: Compensate 1 Ten



2 ones – 4 ones

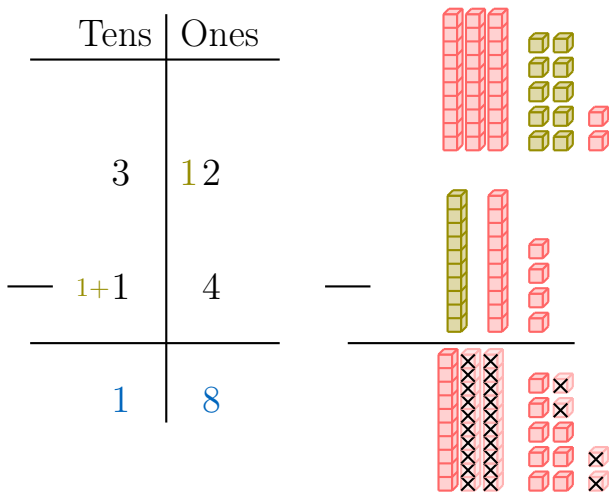
There are not enough ones. You regroup 10 ones to make it 12. You compensate by adding 1 ten to 14, which makes it 2 tens.

• Step 3: Subtract the ones



12 ones – 4 ones = 8 ones

• Step 4: Subtract the tens



3 tens (from 32) – 1 ten (from 14) – 1 ten (compensated) = 1 ten

• **Result:** There is 1 ten and 8 ones. So,

$$32 - 14 = 18$$

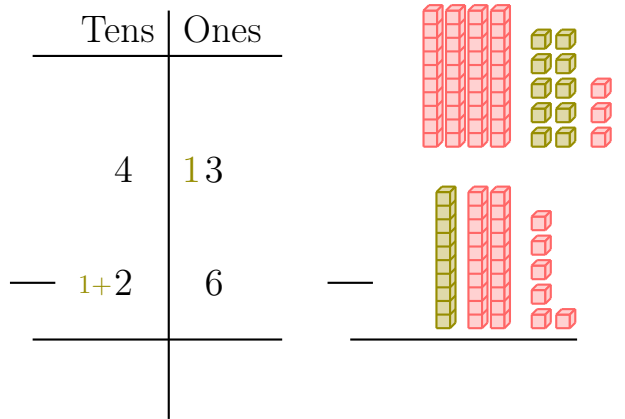
Ex 17:

$$\begin{array}{r} 43 \\ - 26 \\ \hline 17 \end{array}$$

Answer:

• Step 1: Set up the subtraction

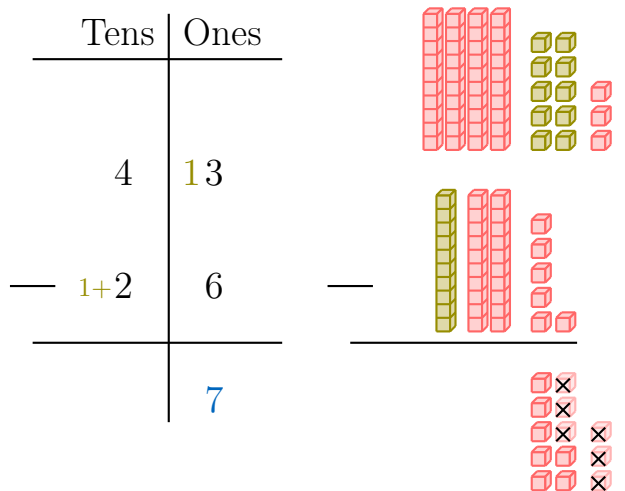
• Step 2: Compensate 1 Ten



3 ones – 6 ones

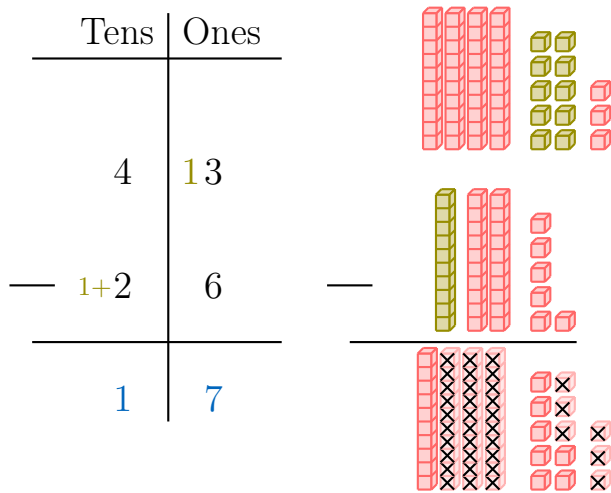
There are not enough ones. You regroup 10 ones to make it 13. You compensate by adding 1 ten to 26, which makes it 3 tens.

• Step 3: Subtract the ones



13 ones – 6 ones = 7 ones

• Step 4: Subtract the tens



4 tens (from 43) – 2 tens (from 26) – 1 ten (compensated) = 1 ten

- **Result:** There is 1 ten and 7 ones. So,

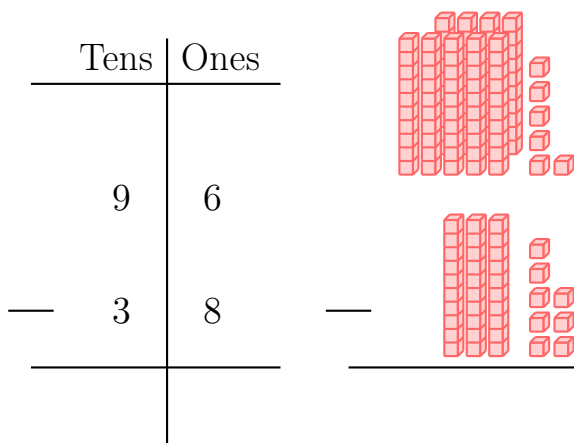
$$43 - 26 = 17$$

Ex 18:

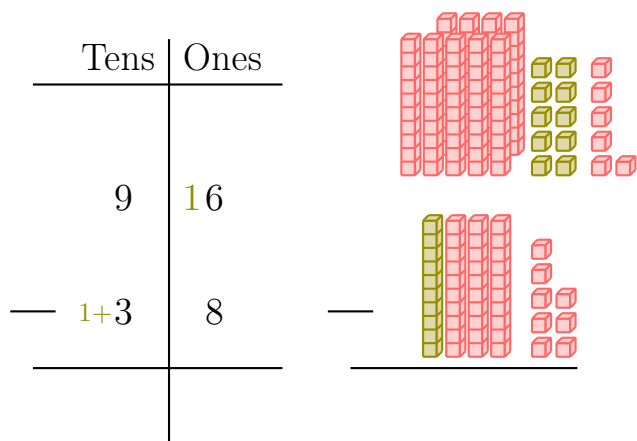
$$\begin{array}{r} 96 \\ - 38 \\ \hline \boxed{58} \end{array}$$

Answer:

- **Step 1: Set up the subtraction**



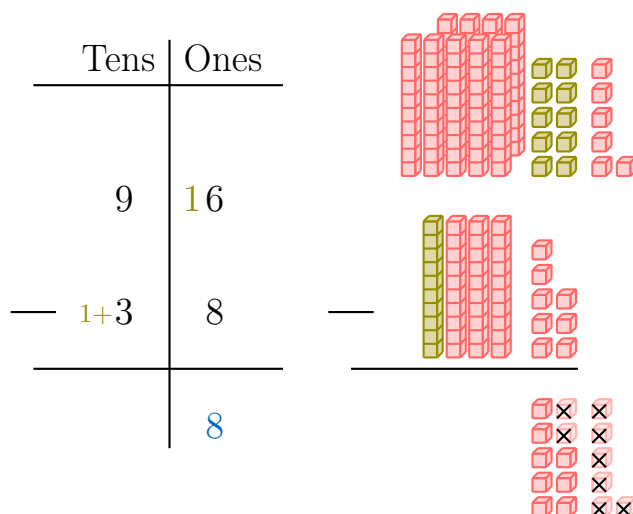
- **Step 2: Compensate 1 Ten**



$$6 \text{ ones} - 8 \text{ ones}$$

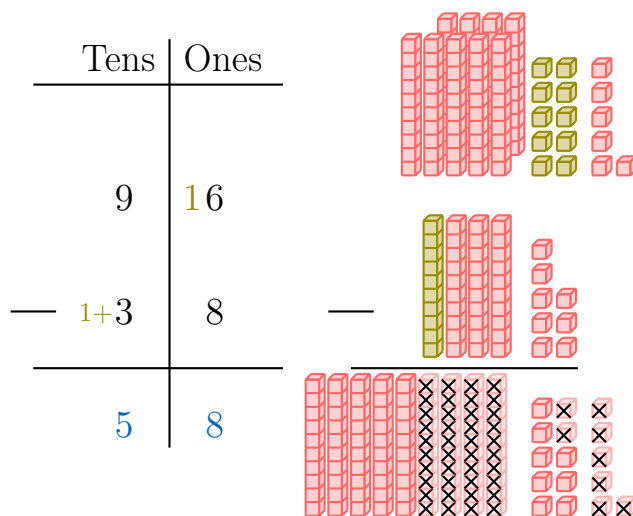
There are not enough ones. You regroup 10 ones to make it 16. You compensate by adding 1 ten to 38, which makes it 4 tens.

- **Step 3: Subtract the ones**



$$16 \text{ ones} - 8 \text{ ones} = 8 \text{ ones}$$

- **Step 4: Subtract the tens**



9 tens (from 96) – 3 tens (from 38) – 1 ten (compensated) = 5 tens

- **Result:** There are 5 tens and 8 ones. So,

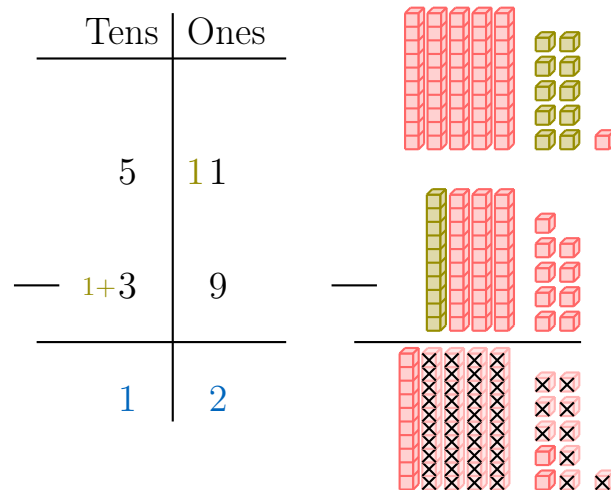
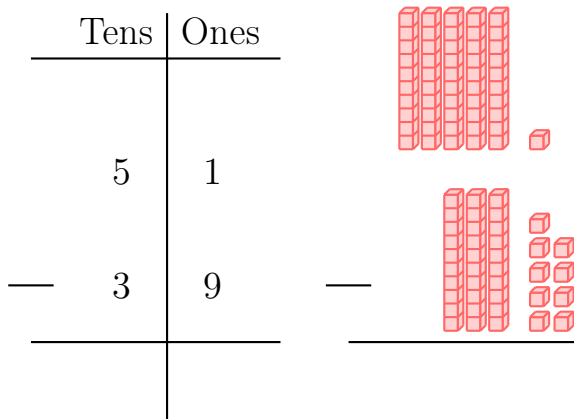
$$96 - 38 = 58$$

Ex 19:

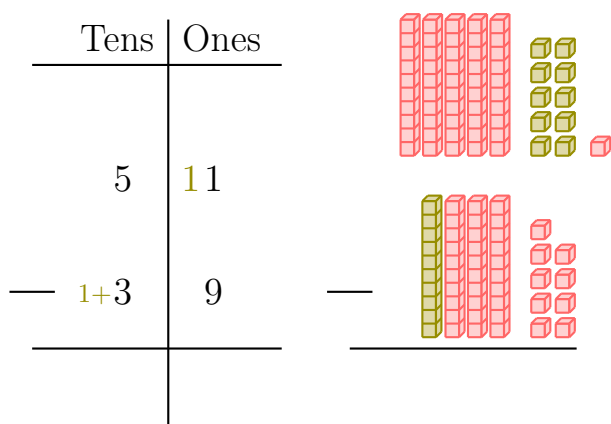
$$\begin{array}{r} 51 \\ - 39 \\ \hline \boxed{12} \end{array}$$

Answer:

- **Step 1: Set up the subtraction**



• **Step 2: Compensate 1 Ten**



5 tens (from 51) – 3 tens (from 39) – 1 ten (compensated) = 1 ten

• **Result:** There is 1 ten and 2 ones. So,

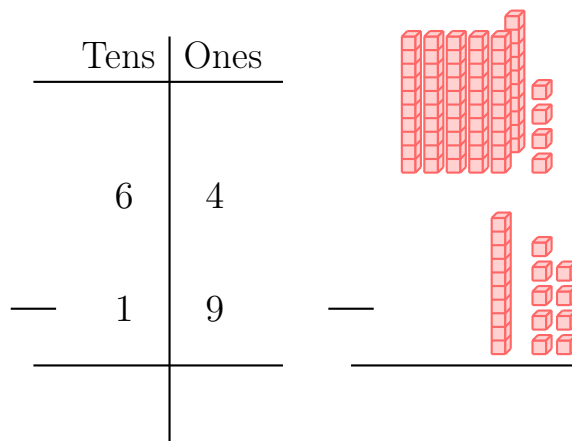
$$51 - 39 = 12$$

Ex 20:

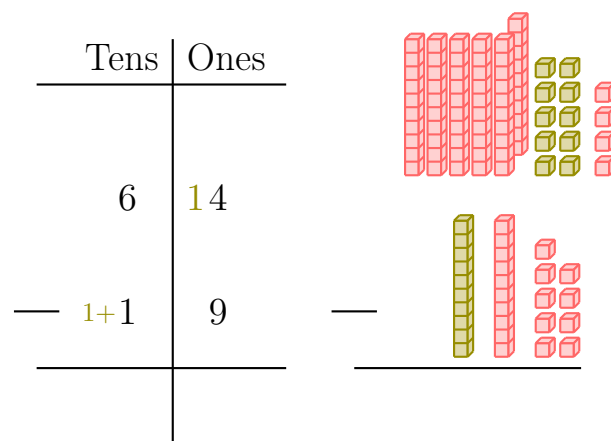
$$\begin{array}{r} 64 \\ - 19 \\ \hline 45 \end{array}$$

Answer:

• **Step 1: Set up the subtraction**



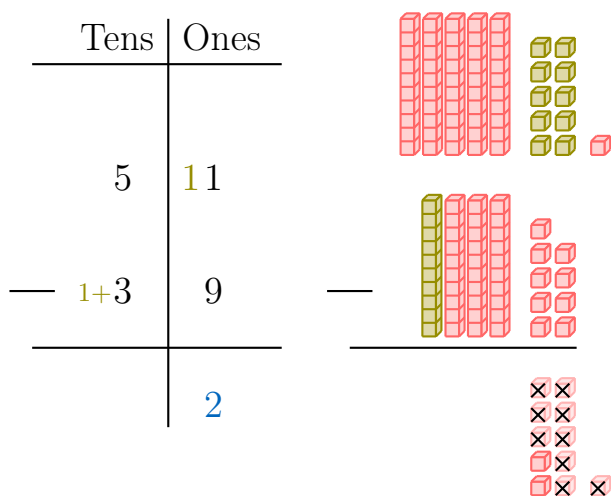
• **Step 2: Compensate 1 Ten**



1 one – 9 ones

There are not enough ones. You regroup 10 ones to make it 11. You compensate by adding 1 ten to 39, which makes it 4 tens.

• **Step 3: Subtract the ones**



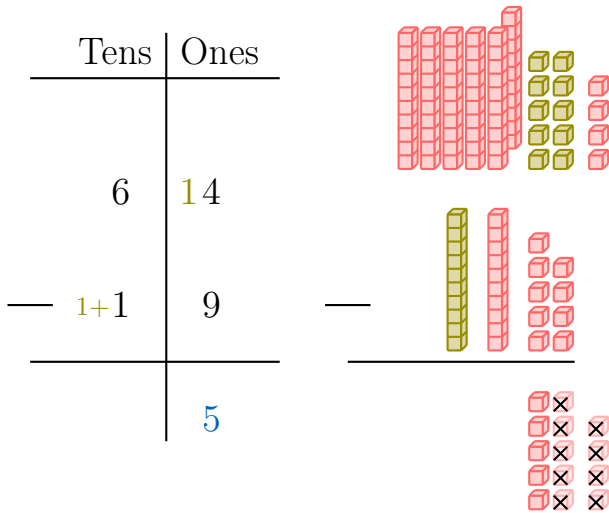
11 ones – 9 ones = 2 ones

• **Step 4: Subtract the tens**

4 ones – 9 ones

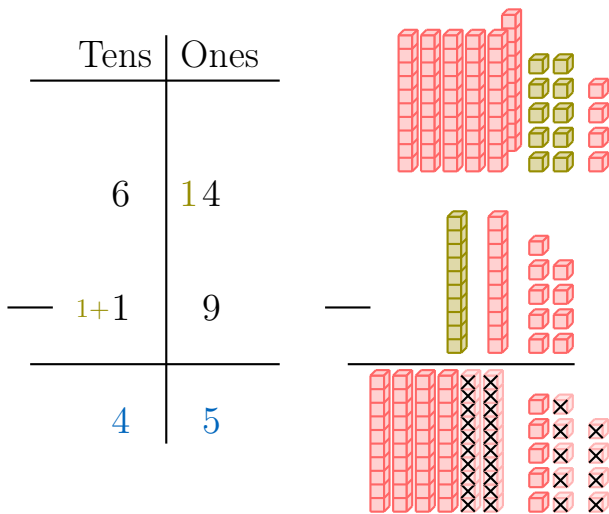
There are not enough ones. You regroup 10 ones to make it 14. You compensate by adding 1 ten to 19, which makes it 2 tens.

• Step 3: Subtract the ones



14 ones – 9 ones = 5 ones

• Step 4: Subtract the tens



6 tens (from 64) – 1 ten (from 19) – 1 ten (compensated) = 4 tens

• Result: There are 4 tens and 5 ones. So,

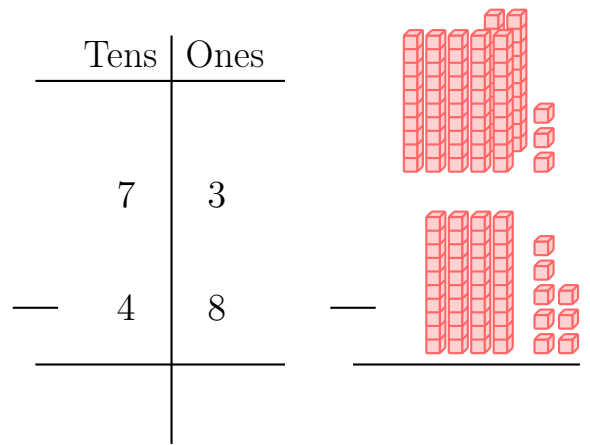
$$64 - 19 = 45$$

Ex 21:

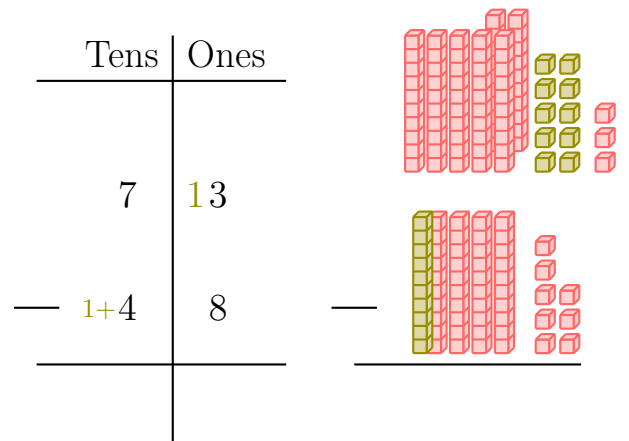
$$\begin{array}{r} 73 \\ - 48 \\ \hline 25 \end{array}$$

Answer:

• Step 1: Set up the subtraction



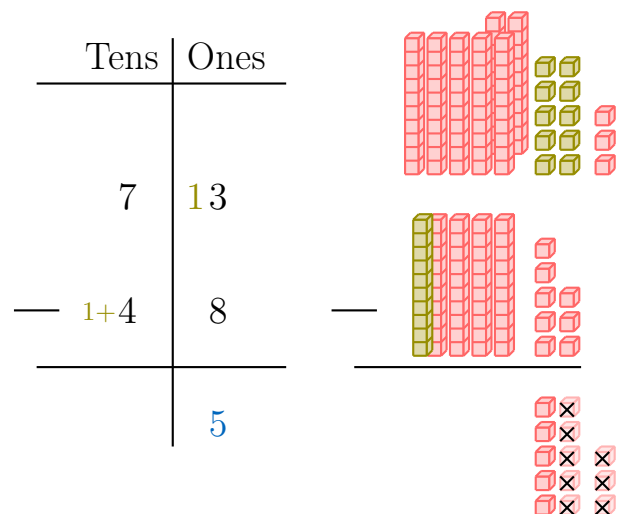
• Step 2: Compensate 1 Ten



3 ones – 8 ones

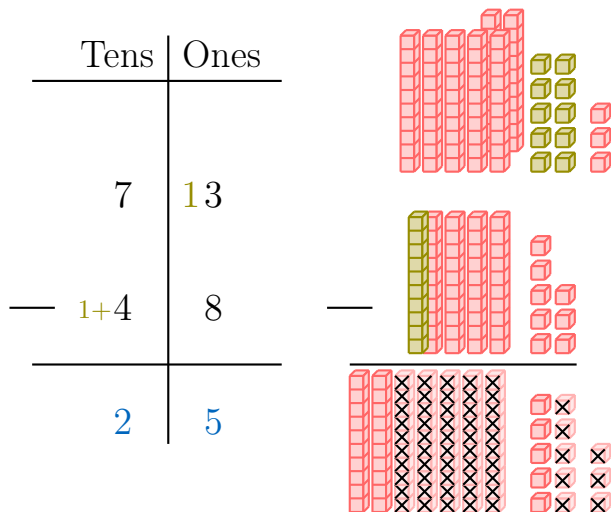
There are not enough ones. You regroup 10 ones to make it 13. You compensate by adding 1 ten to 48, which makes it 5 tens.

• Step 3: Subtract the ones



13 ones – 8 ones = 5 ones

• Step 4: Subtract the tens



$$\begin{array}{r} 840 \\ - 330 \\ \hline 510 \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 840 \\ - 330 \\ \hline \end{array}$$

- Subtract the ones: $0 - 0 = 0$

$$\begin{array}{r} 840 \\ - 330 \\ \hline 0 \end{array}$$

- Subtract the tens: $4 - 3 = 1$

$$\begin{array}{r} 840 \\ - 330 \\ \hline 10 \end{array}$$

- Subtract the hundreds: $8 - 3 = 5$

$$\begin{array}{r} 840 \\ - 330 \\ \hline 510 \end{array}$$

- So $840 - 330 = 510$

Ex 24:

$$\begin{array}{r} 873 \\ - 142 \\ \hline 731 \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 873 \\ - 142 \\ \hline \end{array}$$

- Subtract the ones: $3 - 2 = 1$

$$\begin{array}{r} 873 \\ - 142 \\ \hline 1 \end{array}$$

- Subtract the tens: $7 - 4 = 3$

$$\begin{array}{r} 873 \\ - 142 \\ \hline 31 \end{array}$$

7 tens (from 73) $-$ 4 tens (from 48) $-$ 1 ten (compensated) = 2 tens

- **Result:** There are 2 tens and 5 ones. So,

$$73 - 48 = 25$$

B.2 SUBTRACTING USING COLUMNS TO 1 000 WITHOUT COMPENSATION

Ex 22:

$$\begin{array}{r} 364 \\ - 142 \\ \hline 222 \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 364 \\ - 142 \\ \hline \end{array}$$

- Subtract the ones: $4 - 2 = 2$

$$\begin{array}{r} 364 \\ - 142 \\ \hline 2 \end{array}$$

- Subtract the tens: $6 - 4 = 2$

$$\begin{array}{r} 364 \\ - 142 \\ \hline 22 \end{array}$$

- Subtract the hundreds: $3 - 1 = 2$

$$\begin{array}{r} 364 \\ - 142 \\ \hline 222 \end{array}$$

- So $364 - 142 = 222$

Ex 23:

- Subtract the hundreds: $8 - 1 = 7$

$$\begin{array}{r} 873 \\ - 142 \\ \hline 731 \end{array}$$

- So $873 - 142 = 731$

Ex 25:

$$\begin{array}{r} 873 \\ - 672 \\ \hline \boxed{201} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 873 \\ - 672 \\ \hline \end{array}$$

- Subtract the ones: $3 - 2 = 1$

$$\begin{array}{r} 873 \\ - 672 \\ \hline 1 \end{array}$$

- Subtract the tens: $7 - 7 = 0$

$$\begin{array}{r} 873 \\ - 672 \\ \hline 01 \end{array}$$

- Subtract the hundreds: $8 - 6 = 2$

$$\begin{array}{r} 873 \\ - 672 \\ \hline 201 \end{array}$$

- So $873 - 672 = 201$

Ex 26:

$$\begin{array}{r} 873 \\ - 72 \\ \hline \boxed{801} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 873 \\ - 72 \\ \hline \end{array}$$

- Subtract the ones: $3 - 2 = 1$

$$\begin{array}{r} 873 \\ - 72 \\ \hline 1 \end{array}$$

- Subtract the tens: $7 - 7 = 0$

$$\begin{array}{r} 873 \\ - 72 \\ \hline 01 \end{array}$$

- Subtract the hundreds: $8 - 0 = 8$

$$\begin{array}{r} 873 \\ - 72 \\ \hline 801 \end{array}$$

- So $873 - 72 = 801$

Ex 27:

$$\begin{array}{r} 950 \\ - 330 \\ \hline \boxed{620} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 950 \\ - 330 \\ \hline \end{array}$$

- Subtract the ones: $0 - 0 = 0$

$$\begin{array}{r} 950 \\ - 330 \\ \hline 0 \end{array}$$

- Subtract the tens: $5 - 3 = 2$

$$\begin{array}{r} 950 \\ - 330 \\ \hline 20 \end{array}$$

- Subtract the hundreds: $9 - 3 = 6$

$$\begin{array}{r} 950 \\ - 330 \\ \hline 620 \end{array}$$

- So $950 - 330 = 620$

B.3 SUBTRACTING USING COLUMNS TO 1 000 WITH COMPENSATION

Ex 28:

$$\begin{array}{r} 364 \\ - 145 \\ \hline \boxed{219} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 364 \\ - 145 \\ \hline \end{array}$$

- Compensate 1 Ten: $4 - 5$ There are not enough ones. You regroup 10 ones to make it 14. You compensate by adding 1 ten.

$$\begin{array}{r} 36\cancel{4} \\ - 1\cancel{4}5 \\ \hline \end{array}$$

- Subtract the ones: $14 - 5 = 9$

$$\begin{array}{r} 36\cancel{4} \\ - 1\cancel{4}5 \\ \hline 9 \end{array}$$

- Subtract the ten digits: $6 - 1(\text{compensated}) - 4 = 1$

$$\begin{array}{r} 36\cancel{4} \\ - 1\cancel{4}5 \\ \hline 19 \end{array}$$

- Subtract the hundred digits: $3 - 1 = 2$

$$\begin{array}{r} \cancel{3}6\cancel{4} \\ - \cancel{1}\cancel{4}5 \\ \hline 219 \end{array}$$

- So $364 - 145 = 219$

Ex 29:

$$\begin{array}{r} 473 \\ - 249 \\ \hline \boxed{224} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 473 \\ - 249 \\ \hline \end{array}$$

- Compensate 1 Ten: $3 - 9$. There are not enough ones. You regroup 10 ones to make it 13. You compensate by adding 1 ten to 249, which makes it 5 tens.

$$\begin{array}{r} 47\cancel{3} \\ - 2\cancel{4}9 \\ \hline \end{array}$$

- Subtract the one digits: $13 - 9 = 4$

$$\begin{array}{r} 47\cancel{3} \\ - 2\cancel{4}9 \\ \hline 4 \end{array}$$

- Subtract the ten digits: $7 - 1(\text{compensated}) - 4 = 2$

$$\begin{array}{r} 47\cancel{3} \\ - 2\cancel{4}9 \\ \hline 24 \end{array}$$

- Subtract the hundred digits: $4 - 2 = 2$

$$\begin{array}{r} \cancel{4}7\cancel{3} \\ - \cancel{2}\cancel{4}9 \\ \hline 224 \end{array}$$

- So, $473 - 249 = 224$

Ex 30:

$$\begin{array}{r} 860 \\ - 345 \\ \hline \boxed{515} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 860 \\ - 345 \\ \hline \end{array}$$

- Compensate 1 Ten: $0 - 5$. There are not enough ones. You regroup 10 ones to make it 10. You compensate by adding 1 ten to 345, which makes it 5 tens.

$$\begin{array}{r} 86\cancel{0} \\ - 3\cancel{4}5 \\ \hline \end{array}$$

- Subtract the one digits: $10 - 5 = 5$

$$\begin{array}{r} 86\cancel{0} \\ - 3\cancel{4}5 \\ \hline 5 \end{array}$$

- Subtract the ten digits: $6 - 1(\text{compensated}) - 4 = 1$

$$\begin{array}{r} 8\ 6\ 0 \\ - 3\ 4\ 5 \\ \hline 1\ 5 \end{array}$$

- Subtract the hundred digits: $8 - 3 = 5$

$$\begin{array}{r} 8\ 6\ 0 \\ - 3\ 4\ 5 \\ \hline 5\ 1\ 5 \end{array}$$

- So, $860 - 345 = 515$

Ex 31:

$$\begin{array}{r} 3\ 3\ 5 \\ - 1\ 6\ 1 \\ \hline \boxed{174} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 3\ 3\ 5 \\ - 1\ 6\ 1 \\ \hline \end{array}$$

- Subtract the one digits: $5 - 1 = 4$

$$\begin{array}{r} 3\ 3\ 5 \\ - 1\ 6\ 1 \\ \hline 4 \end{array}$$

- Subtract the ten digits: $3 - 6$. There are not enough tens. You compensate 1 hundred into 10 tens, making 12 tens.

$$\begin{array}{r} 3\ 3\ 5 \\ - 1\ 6\ 1 \\ \hline 4 \end{array}$$

- Subtract the ten digits: $13 - 6 = 7$

$$\begin{array}{r} 3\ 3\ 5 \\ - 1\ 6\ 1 \\ \hline 7\ 4 \end{array}$$

- Subtract the hundred digits: $3 - 1(\text{compensated}) - 1 = 1$

$$\begin{array}{r} 3\ 3\ 5 \\ - 1\ 6\ 1 \\ \hline 1\ 7\ 4 \end{array}$$

- So, $335 - 161 = 174$

Ex 32:

$$\begin{array}{r} 8\ 3\ 7 \\ - 2\ 4\ 6 \\ \hline \boxed{591} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 8\ 3\ 7 \\ - 2\ 4\ 6 \\ \hline \end{array}$$

- Subtract the one digits: $7 - 6 = 1$

$$\begin{array}{r} 8\ 3\ 7 \\ - 2\ 4\ 6 \\ \hline 1 \end{array}$$

- Subtract the ten digits: $3 - 4$. There are not enough tens. You compensate 1 hundred into 10 tens, making 13 tens.

$$\begin{array}{r} 8\ 3\ 7 \\ - 2\ 4\ 6 \\ \hline 1 \end{array}$$

- Subtract the ten digits: $13 - 4 = 9$

$$\begin{array}{r} 8\ 3\ 7 \\ - 2\ 4\ 6 \\ \hline 9\ 1 \end{array}$$

- Subtract the hundred digits: $8 - 1(\text{compensated}) - 2 = 5$

$$\begin{array}{r} 8\ 3\ 7 \\ - 2\ 4\ 6 \\ \hline 5\ 9\ 1 \end{array}$$

- So, $837 - 246 = 591$

B.4 SUBTRACTING USING COLUMNS TO 1 000 WITH COMPENSATION

Ex 33:

$$\begin{array}{r} 4\ 6\ 0 \\ - 2\ 8\ 1 \\ \hline \boxed{179} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 4\ 6\ 0 \\ - 2\ 8\ 1 \\ \hline \end{array}$$

- Subtract the one digits: $0 - 1$. There are not enough ones. You compensate 1 ten into 10 ones, making 10 ones.

$$\begin{array}{r} 4\ 6\ 0 \\ - 2\ 8\ 1 \\ \hline \end{array}$$

- Subtract the one digits: $10 - 1 = 9$

$$\begin{array}{r} 46\cancel{1}0 \\ -2\cancel{8}1 \\ \hline 9 \end{array}$$

- Subtract the ten digits: $6 - 1(\text{compensated}) - 8$. There are not enough tens. You compensate 1 hundred into 10 tens, making 16 tens.

$$\begin{array}{r} 4\cancel{1}6\cancel{1}0 \\ -2\cancel{8}1 \\ \hline 9 \end{array}$$

- Subtract the ten digits: $16 - 1(\text{compensated}) - 8 = 7$

$$\begin{array}{r} 4\cancel{1}6\cancel{1}0 \\ -2\cancel{8}1 \\ \hline 79 \end{array}$$

- Subtract the hundred digits: $4 - 1(\text{compensated}) - 2 = 1$

$$\begin{array}{r} 4\cancel{1}6\cancel{1}0 \\ -2\cancel{8}1 \\ \hline 179 \end{array}$$

- So, $460 - 281 = 179$

Ex 34:

$$\begin{array}{r} 322 \\ -145 \\ \hline \boxed{177} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 322 \\ -145 \\ \hline \end{array}$$

- Subtract the one digits: $2 - 5$. There are not enough ones. You compensate 1 ten into 10 ones, making 12 ones.

$$\begin{array}{r} 32\cancel{2} \\ -1\cancel{4}5 \\ \hline \end{array}$$

- Subtract the one digits: $12 - 5 = 7$

$$\begin{array}{r} 32\cancel{2} \\ -1\cancel{4}5 \\ \hline 7 \end{array}$$

- Subtract the ten digits: $2 - 1(\text{compensated}) - 4$. There are not enough tens. You compensate 1 hundred into 10 tens, making 12 tens.

$$\begin{array}{r} 3\cancel{2}\cancel{2} \\ -\cancel{1}\cancel{4}5 \\ \hline 7 \end{array}$$

- Subtract the ten digits: $12 - 1(\text{compensated}) - 4 = 7$

$$\begin{array}{r} 3\cancel{2}\cancel{2} \\ -\cancel{1}\cancel{4}5 \\ \hline 77 \end{array}$$

- Subtract the hundred digits: $3 - 1(\text{compensated}) - 1 = 1$

$$\begin{array}{r} 3\cancel{2}\cancel{2} \\ -\cancel{1}\cancel{4}5 \\ \hline 177 \end{array}$$

- So, $322 - 145 = 177$

Ex 35:

$$\begin{array}{r} 300 \\ -101 \\ \hline \boxed{199} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 300 \\ -101 \\ \hline \end{array}$$

- Subtract the one digits: $0 - 1$. There are not enough ones. You compensate 1 ten into 10 ones, making 10 ones.

$$\begin{array}{r} 30\cancel{0} \\ -1\cancel{0}1 \\ \hline \end{array}$$

- Subtract the one digits: $10 - 1 = 9$

$$\begin{array}{r} 30\cancel{0} \\ -1\cancel{0}1 \\ \hline 9 \end{array}$$

- Subtract the ten digits: $0 - 1(\text{compensated}) - 0$. There are not enough tens. You compensate 1 hundred into 10 tens, making 10 tens.

$$\begin{array}{r} 3\cancel{0}\cancel{0} \\ -\cancel{1}\cancel{0}1 \\ \hline 9 \end{array}$$

- Subtract the ten digits: $10 - 1(\text{compensated}) - 0 = 9$

$$\begin{array}{r} 3\cancel{0}\cancel{0} \\ -\cancel{1}\cancel{0}1 \\ \hline 99 \end{array}$$

- Subtract the hundred digits: $3 - 1(\text{compensated}) - 1 = 1$

$$\begin{array}{r} 3 \cancel{1} 0 \cancel{0} \\ - \cancel{1} \cancel{1} 0 \cancel{1} \\ \hline 1 \ 9 \ 9 \end{array}$$

- So, $300 - 101 = 199$

Ex 36:

$$\begin{array}{r} 9 \ 1 \ 5 \\ - 3 \ 7 \ 7 \\ \hline \boxed{538} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 9 \ 1 \ 5 \\ - 3 \ 7 \ 7 \\ \hline \end{array}$$

- Subtract the one digits: $5 - 7$. There are not enough ones. You compensate 1 ten into 10 ones, making 15 ones.

$$\begin{array}{r} 9 \ 1 \ 5 \\ - 3 \ \cancel{7} \ 7 \\ \hline \end{array}$$

- Subtract the one digits: $15 - 7 = 8$

$$\begin{array}{r} 9 \ 1 \ \cancel{5} \\ - 3 \ \cancel{7} \ 7 \\ \hline 8 \end{array}$$

- Subtract the ten digits: $1 - 1(\text{compensated}) - 7$. There are not enough tens. You compensate 1 hundred into 10 tens, making 11 tens.

$$\begin{array}{r} 9 \ \cancel{1} \ 5 \\ - \cancel{3} \ \cancel{7} \ 7 \\ \hline 8 \end{array}$$

- Subtract the ten digits: $11 - 1(\text{compensated}) - 7 = 3$

$$\begin{array}{r} 9 \ \cancel{1} \ 5 \\ - \cancel{3} \ \cancel{7} \ 7 \\ \hline 3 \ 8 \end{array}$$

- Subtract the hundred digits: $9 - 1(\text{compensated}) - 3 = 5$

$$\begin{array}{r} \cancel{9} \ \cancel{1} \ 5 \\ - \cancel{3} \ \cancel{7} \ 7 \\ \hline 5 \ 3 \ 8 \end{array}$$

- So, $915 - 377 = 538$

Ex 37:

$$\begin{array}{r} 5 \ 4 \ 0 \\ - 7 \ 5 \\ \hline \boxed{465} \end{array}$$

Answer:

- Set up column subtraction:

$$\begin{array}{r} 5 \ 4 \ 0 \\ - 7 \ 5 \\ \hline \end{array}$$

- Subtract the one digits: $0 - 5$. There are not enough ones. You compensate 1 ten into 10 ones, making 10 ones.

$$\begin{array}{r} 5 \ 4 \ \cancel{0} \\ - \ \cancel{1} \ 7 \ 5 \\ \hline \end{array}$$

- Subtract the one digits: $10 - 5 = 5$

$$\begin{array}{r} 5 \ 4 \ \cancel{0} \\ - \ \cancel{1} \ 7 \ 5 \\ \hline 5 \end{array}$$

- Subtract the ten digits: $4 - 1(\text{compensated}) - 7$. There are not enough tens. You compensate 1 hundred into 10 tens, making 14 tens.

$$\begin{array}{r} 5 \ \cancel{4} \ \cancel{0} \\ - \ \cancel{1} \ \cancel{7} \ 5 \\ \hline 5 \end{array}$$

- Subtract the ten digits: $14 - 1(\text{compensated}) - 7 = 6$

$$\begin{array}{r} 5 \ \cancel{4} \ \cancel{0} \\ - \ \cancel{1} \ \cancel{7} \ 5 \\ \hline 6 \ 5 \end{array}$$

- Subtract the hundred digits: $5 - 1(\text{compensated}) = 4$

$$\begin{array}{r} \cancel{5} \ \cancel{4} \ \cancel{0} \\ - \ \cancel{1} \ \cancel{7} \ 5 \\ \hline 4 \ 6 \ 5 \end{array}$$

- So, $540 - 75 = 465$

B.5 SOLVING REAL-WORLD PROBLEMS

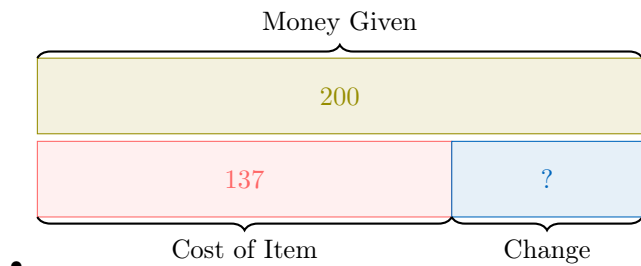
Ex 38: You buy an article for 137 dollars. You give the seller a 200 dollar bill.

How much change will you get back?

$$\boxed{63} \text{ dollars}$$

Answer:

- To find out how much change you'll get back, start with the amount you gave the seller and subtract the cost of the item.



$$\begin{array}{r} 200 \\ -137 \\ \hline 63 \end{array}$$

- So, the change you'll get back is $200 - 137 = 63$ dollars.

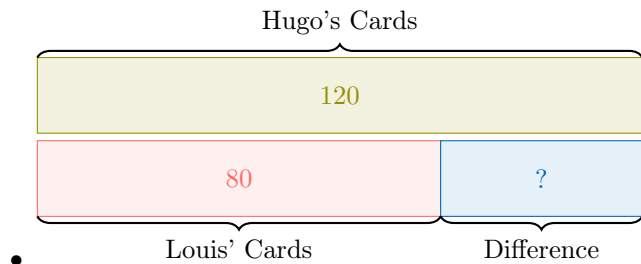
Ex 39: Hugo has 120 Pokémon cards, and Louis has 80 Pokémon cards.

What is the difference in the number of cards they have?

40 cards

Answer:

- To find the difference, subtract the number of cards Louis has from the number of cards Hugo has.



$$\begin{array}{r} 120 \\ -80 \\ \hline 40 \end{array}$$

- The difference in the number of cards is $120 - 80 = 40$ cards.

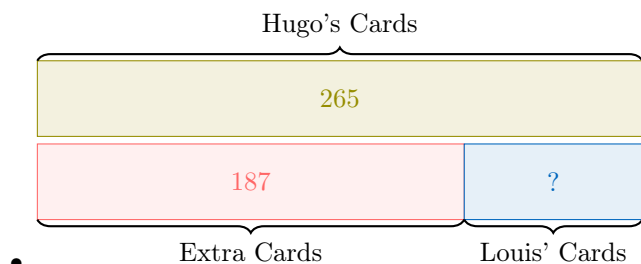
Ex 40: Hugo has 265 Pokémon cards. He has 187 more cards than Louis.

How many cards does Louis have?

78 cards

Answer:

- To find the number of cards Louis has, subtract the extra cards Hugo has from his total.



$$\begin{array}{r} 265 \\ -187 \\ \hline 78 \end{array}$$

- Louis has $265 - 187 = 78$ cards.

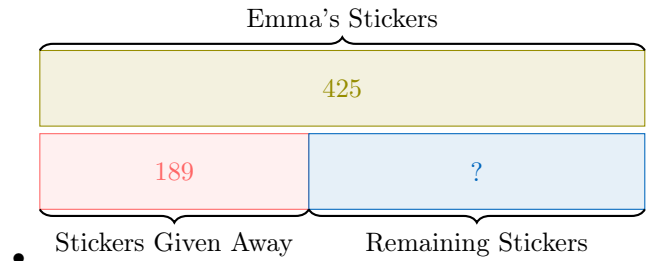
Ex 41: Emma has 425 stickers. She gives 189 stickers to her friend.

How many stickers does Emma have left?

236 stickers

Answer:

- To find out how many stickers Emma has left, subtract the number of stickers she gave away from her initial total.



$$\begin{array}{r} 425 \\ -189 \\ \hline 236 \end{array}$$

- So, Emma has $425 - 189 = 236$ stickers left.