

Poole Elementary 4th Grade Math Homework Helper

Unit 1- MCC4.NBT.4

MCC4.NBT.4 - Fluently add and subtract multi-digit whole numbers using the standard algorithm.

In other words... I can add and subtract large numbers (3-, 4-, 5-, 6-, etc. digit numbers) following the same steps or rules.

$$\begin{array}{r} 4,317 \\ + 6,209 \\ \hline 10,526 \end{array}$$

$$\begin{array}{r} 4,317 \\ - 2,993 \\ \hline 1,324 \end{array}$$

$$\begin{array}{r} 81,630 \\ + 24,791 \\ \hline 106,421 \end{array}$$

$$\begin{array}{r} 81,630 \\ - 59,888 \\ \hline 21,742 \end{array}$$

I also know... that I can remember what I know about place value to help me use the step-by-step method.

For example: In December, 4,286 people visited the Art Museum. In January, 1,947 people visited the Art Museum. How many people went to the Art Museum in December and January? The question is asking me for an "all together" answer so I know this is addition.

I re-write the problem as $4,286 + 1,947 = ?$

Step 1: Line up the digits.

Add the ones. 6 ones plus 7 ones = 13 ones.

Regroup the 13 ones.

$$\begin{array}{r} 1 \\ 4,286 \\ + 1,947 \\ \hline 3 \end{array}$$

I leave 3 ones in the ones place and think of the 10 ones as 1 ten and move it above the numbers in the tens place.

Step 2: Add the tens.

8 tens plus 4 tens plus the extra ten from the ones place = 13 tens.

Regroup the 13 tens.

$$\begin{array}{r} 11 \\ 4,286 \\ + 1,947 \\ \hline 33 \end{array}$$

I leave the 3 tens in the tens place and think of the 10 tens as 1 hundred and move it above the numbers in the hundreds place.

Step 3: Add the hundreds.

2 hundreds plus 9 hundreds plus the extra hundred from the tens place = 12 hundreds.

Regroup the 12 hundreds.

$$\begin{array}{r} 111 \\ 4,286 \\ + 1,947 \\ \hline 233 \end{array}$$

I leave the 2 hundreds in the hundreds place and think of the 10 hundreds as 1 thousand and move it above the numbers in the thousands place.

Step 4: Add the thousands.

4 thousands plus 1 thousand plus the extra thousand from the hundreds place = 6 thousands.

$$\begin{array}{r} 111 \\ 4,286 \\ + 1,947 \\ \hline 6,233 \end{array}$$

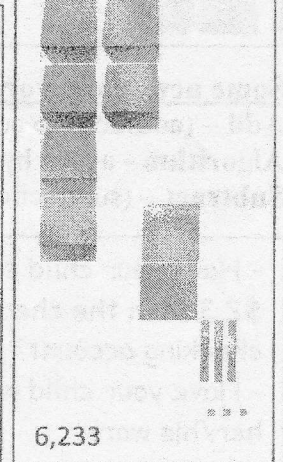
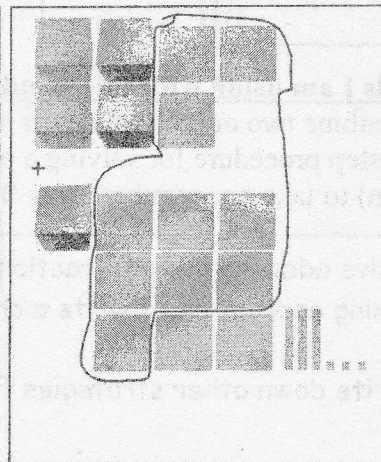
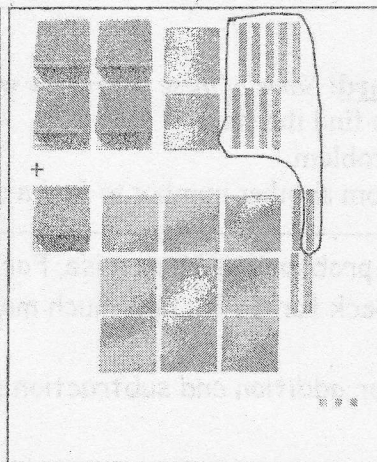
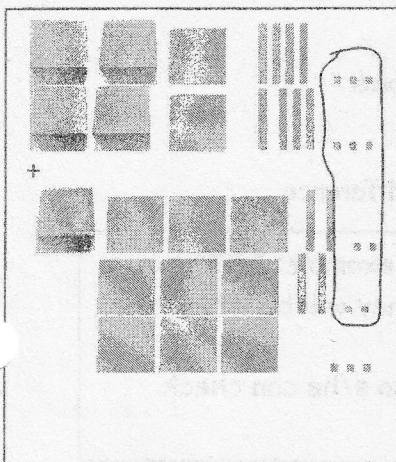
My answer is 6,233.

$$4,286 + 1,947 = 6,233$$

In December and January, 6,233 people went to the Art Museum.

I can use base-10 blocks to show how I solved this problem.

$$\begin{array}{c} \text{[Large Block]} = 1,000 \\ \text{[Medium Block]} = 100 \\ \text{[Small Block]} = 10 \\ \text{[Tiny Block]} = 1 \end{array}$$



Another Example: If 6,233 people visited the Art Museum in December and January and only 4,286 went in December, how many people visited the Art Museum in January? The question is asking for the “difference between two numbers” so I know it is a subtraction problem. I re-write the problem as $6,233 - 4,286 = ?$

Step 1: Line up the digits.

Subtract the ones. I can't take 6 ones from 3 ones so I regroup 3 tens - I leave 2 tens in the tens place and move 10 ones to the ones place. 13 ones minus 6 ones = 7 ones

$$\begin{array}{r} 213 \\ 6,233 \\ - 4,286 \\ \hline 7 \end{array}$$

Step 2: Subtract the tens.

I can't take 8 tens from 2 tens so I regroup 2 hundreds. I leave 1 hundred and move 10 tens to the tens place. 12 tens minus 8 tens = 4 tens.

$$\begin{array}{r} 112 \\ 213 \\ 6,233 \\ - 4,286 \\ \hline 47 \end{array}$$

Step 3: Subtract the hundreds.

I can't take 2 hundreds from 1 hundred so I regroup 6 thousands. I leave 5 thousands and move 10 hundreds to the hundreds place. 11 hundreds minus 2 hundreds = 9 hundreds.

$$\begin{array}{r} 511 \\ 212 \\ 213 \\ 6,233 \\ - 4,286 \\ \hline 947 \end{array}$$

Step 4: Subtract the thousands.

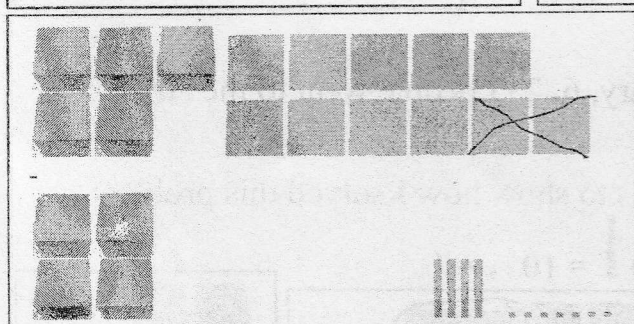
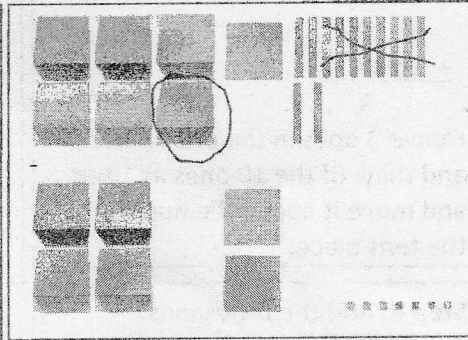
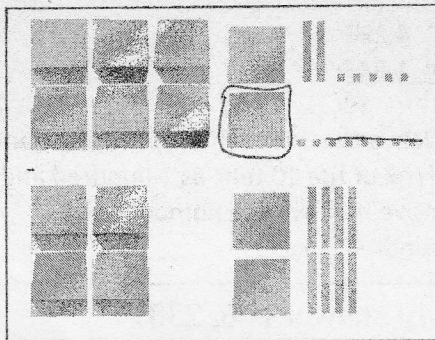
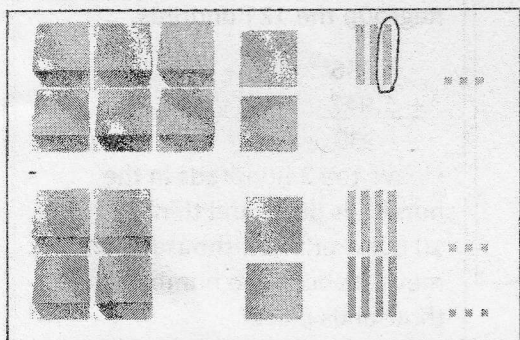
5 thousands minus 4 thousands = 1 thousands.

$$\begin{array}{r} 511 \\ 212 \\ 213 \\ 6,233 \\ - 4,286 \\ \hline 1,947 \end{array}$$

$$6,233 - 4,286 = 1,947$$

In January, 1,947 people visited the Art Museum.

I can use base-10 blocks to show how I solved this problem.



Some new math words I am using with this standard: Some of these are review words

Add – (addition) to combine two or more numbers to find the sum.

Algorithm – a step by step procedure for solving a problem.

Subtract – (subtraction) to take one number away from another number to find a difference.

- Have your child solve addition and subtraction problems as they arise. For example: If I have \$2,348 in the checking account and I write a check for \$976, how much money will be left in the checking account?
- Have your child write down other strategies for addition and subtraction so s/he can check her/his work.