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Modified In-School Off-School Approach Modules (MISOSA)  
**Distance Education for Elementary Schools**  
**SELF-INSTRUCTIONAL MATERIALS**



**ADDITION OF NUMBERS  
THROUGH BILLIONS  
WITH REGROUPING**



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## ADDITION OF NUMBERS THROUGH BILLIONS WITH REGROUPING

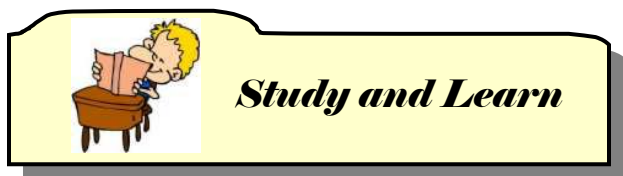
**Objective:** Add 6-or more-digit numbers with 4-or more addends with regrouping with sums through billions.



Find the sum of the following.

1)	201 621	2)	116 320	3)	110 235
	123 203		331 241		142 420
	142 142		2 241 227		234 232
	<u>+ 101 032</u>		<u>+ 4 111 211</u>		1 301 101
					<u>+ 4 212 010</u>

Check your answer using the answer key. If your score is 3 you may now proceed to this module. If you get 2 correct answers or below, review adding numbers with five addends.



Now, you will learn how to add numbers with 4-or more addends. It's not hard.

Below are the monthly sales of Me-anne's Drug Store.

Month	Sales
January	₱105,127
February	103,243
March	107,365
April	104,248
May	112,364

Which month has the least sales? *February*

Which month has the greatest sales? *May*

What is the total sale for 5 months?





Let's solve it. Here's how:

1. Align the addends in column. Add first the digits in the ones place

$$\begin{array}{r} \phantom{P}105,127 \\ 103,243 \\ 107,365 \\ 104,248 \\ + 112,364 \\ \hline P \phantom{000}7 \end{array}$$

The sum of the digits in ones place is 27, regroup 2 to the tens place.

2. Add the digits in the tens place together with the regrouped number.

$$\begin{array}{r} \phantom{P}105,127 \\ 103,243 \\ 107,365 \\ 104,248 \\ + 112,364 \\ \hline P \phantom{000}47 \end{array}$$

Regroup 2 to the next place value.

3. Add the digits in the hundreds place with the regrouped number.

$$\begin{array}{r} \phantom{P}105,127 \\ 103,243 \\ 107,365 \\ 104,248 \\ + 112,364 \\ \hline P \phantom{000}347 \end{array}$$

Regroup 1 to the thousands place.

4. Add the thousands with the regrouped number.

$$\begin{array}{r} \phantom{P}105,127 \\ 103,243 \\ 107,365 \\ 104,248 \\ + 112,364 \\ \hline P \phantom{000}2347 \end{array}$$

Regroup 2 to the ten thousands place.

5. Add the digits in the ten thousands place with the regrouped number.

$$\begin{array}{r} \phantom{P}105,127 \\ 103,243 \\ 107,365 \\ 104,248 \\ + 112,364 \\ \hline P \phantom{000}32,347 \end{array}$$

6. Add the hundred thousands place.

$$\begin{array}{r} \phantom{P}105,127 \\ 103,243 \\ 107,365 \\ 104,248 \\ + 112,364 \\ \hline P \phantom{000}532,347 \end{array}$$





The total sales for 5 months is ₱ 532,347.

Study these examples:

$$\begin{array}{r} 1 \quad 1 \quad 21 \\ 226 \ 182 \\ 304 \ 284 \\ 123 \ 206 \\ + \underline{231 \ 347} \\ 885 \ 019 \end{array}$$

$$\begin{array}{r} 2) \quad 1 \quad 1 \quad 1 \quad 12 \\ 206 \ 143 \\ 1 \ 262 \ 157 \\ 12 \ 301 \ 614 \\ + \underline{21 \ 231 \ 347} \\ 34 \ 001 \ 261 \end{array}$$



Let's see if you can add the following correctly.

$$\begin{array}{r} 1) \quad 601 \ 124 \\ 713 \ 365 \\ 826 \ 123 \\ 634 \ 478 \\ + \underline{225 \ 214} \end{array}$$

$$\begin{array}{r} 2) \quad 723 \ 480 \\ 431 \ 643 \\ 24 \ 267 \ 147 \\ + \underline{12 \ 173 \ 364} \end{array}$$



In adding numbers with regrouping:

- align the digits in column.
- start adding the digits in the ones place.
- regroup to the next higher place value if the sum in a certain column is more than 9.





### ***On Your Own***

A. Find the sum.

$$\begin{array}{r} 1) \quad 142\,347 \\ \quad 246\,102 \\ \quad 101\,263 \\ \quad + 200\,121 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 243\,263 \\ \quad 32\,144\,421 \\ \quad 16\,123\,261 \\ \quad + 42\,132\,103 \\ \hline \end{array}$$

$$\begin{array}{r} 3) \quad 6\,125\,328 \\ \quad 7\,210\,545 \\ \quad 379\,004 \\ \quad 534\,263 \\ \quad + 14\,811\,409 \\ \hline \end{array}$$

B. Arrange the following in column then solve for the sum.

$$4) 12\,620\,147 + 10\,364\,172 + 3\,647\,261 + 1\,137\,481 = \underline{\hspace{2cm}}$$

$$5) 348\,846 + 5\,319\,263 + 747\,368 + 45\,306\,409 + 6\,291\,008 = \underline{\hspace{2cm}}$$

*Check your answer with the answer key.*

*If you get 4 to 5 correct answers, you may now proceed to the next module.*

*If you get 3 correct answers, review the processes you missed.*

*If you get 2 correct answers or below, repeat the whole process.*

