



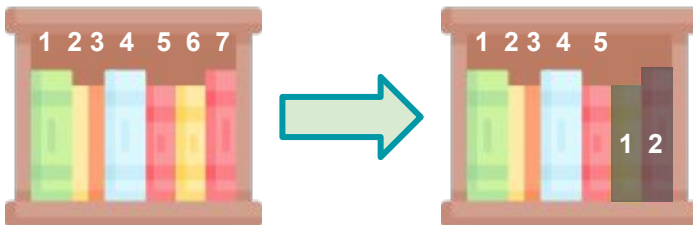
Helping With Math

Subtracting Numbers Within 1000 Using the Base 10 Blocks

GRADE 3



The use of **base ten blocks** was found helpful in understanding the simple arithmetics like addition and subtraction.



A kid gets 2 books from the shelf, how many books remained?

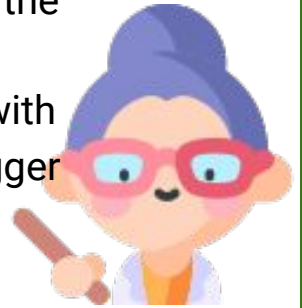


- Subtracting means to remove or take away a number from another number which, in basic subtraction, is bigger than the number to be removed.
- Using base ten blocks is easier than just dealing with numbers because there will be some sort of visuals when subtracting numbers.



RECALL

First, let us recall the concept of subtraction, as well as the process of transforming numbers to base ten blocks.



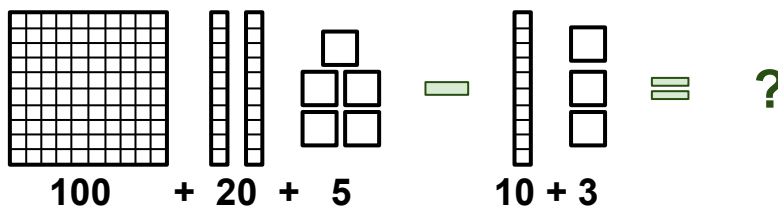
- **Subtraction** is an arithmetic operation that deals with removing a part of a given number from a bigger number.
- It is composed of:
 - **subtrahend** - the number to be subtracted
 - **minuend** - the number where the subtrahend will be taken from
 - **difference** - the result
- Some keywords that indicate subtraction includes minus, diminished, taken or removed from, decreased by, etc.
- Meanwhile, in transforming numbers to base ten blocks, we must keep in mind that:
 - **individual blocks** - represent the digit in ones place value.
 - **rods** - represents the digit in tens place value.
 - **blocks** represent the digits in hundreds place value.

EXAMPLE : Take away 13 chairs from the classroom with 125 chairs.

In numbers, the problem is translated as

$$125 - 13 = ?$$

While in base ten blocks, the word problem is written as

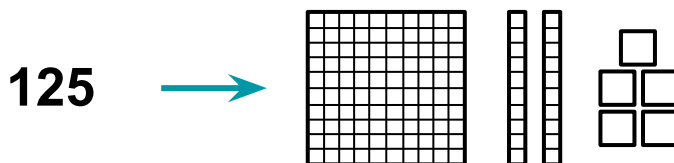


SUBTRACTING USING BASE TEN BLOCKS

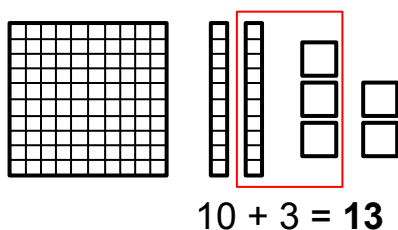
The following steps should be followed when using base ten blocks in subtracting numbers. Follow the steps while solving $125 - 13 = ?$



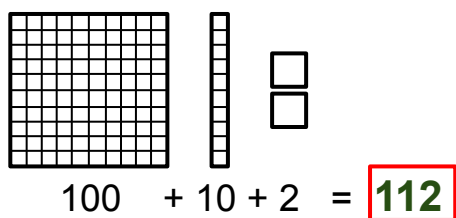
Step 1: Translate the bigger number into base ten blocks.



Step 2: Remove the blocks equivalent to the subtrahend.

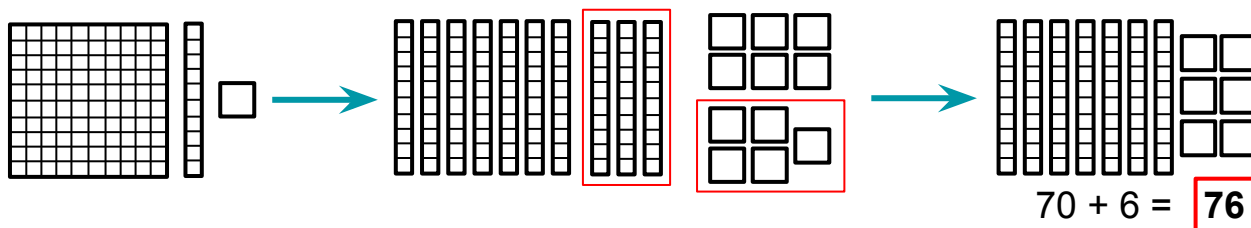


Step 3: Sum up the blocks that remained and it is the answer.



NOTE: If the individual blocks or rods of the bigger number is lesser than those of the smaller number, break the rods into individual blocks and/or the blocks into rods, respectively.

Example: $111 - 35 = ?$



SAMPLE/APPLICATION

SITUATION:

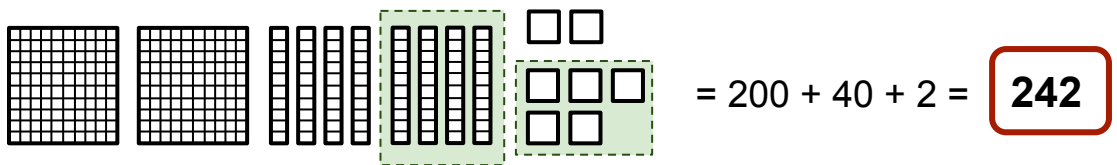
An association donated school supplies to Manila Elementary School. However, when the boxes of school supplies were received, some were damaged while being delivered. The staff assigned in doing the inventory needs to know how many supplies can still be used after counting those that were damaged. Help her so they can give the supplies to the students immediately.

INSTRUCTION:

Subtract the number of the damaged supplies from the total supplies that were given by the association by representing it through base ten blocks.



Of the 287 pencils, 45 were broken.



Of the 935 sheets of paper, 214 were crumpled.



Of the 287 pieces of sharpener, 98 had the blade rusted.



Of the 215 boxes of crayons, 106 had the crayons melted.



TABLE OF ACTIVITIES

1. P.E. Class
2. Word Count
3. Count the Blocks
4. Be Wise with the Supplies
5. Don't Miss the Trip!
6. The Passing Mark
7. One Bill, One Supply
8. Get It All Right
9. School Bus
10. Enrollment Slots



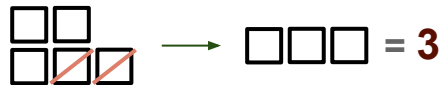
P.E. CLASS

Physical education is essential in the development of sharp minds. Compute the exercises which Lucky lacks by representing the solution in base ten blocks.

Hi, kids! I am Mr. Renz, a physical education teacher. I need to let Lucky know how many repetition/s of each exercise he lacked after our P.E. class today. This will help him know how much he needs to improve next time. I left a guide on the first exercise.



JOGGING (5 mins) | 2 out of 5 laps



PUSH-UPS | 26 out of 30 push-ups



SQUATTING | 25 out of 40 squats



CURL UPS | 22 out of 35 curl ups



JUMP ROPES | 74 out of 100 jumps



WORD COUNT

Time to write an essay! With the help of the base ten blocks, count the words each student still need to work on. Your answers must be in numbers.

In an English class, the teacher asked the students to write an essay about their dream vacation. Upon checking, she noticed that five of her students were not able to comply with the **500 words** requirement. Find out how many words are still needed using the clues below.



WORD COUNT OF CLARA'S ESSAY:

$$\begin{array}{c} \square \square \\ \square \square \square \end{array} - \begin{array}{c} \square \square \\ \square \square \end{array} = \bigcirc$$



WORD COUNT OF ROCKY'S ESSAY:

$$\begin{array}{c} \square \square \\ \square \square \square \end{array} - \begin{array}{c} \square \square \\ \square \square \end{array} \begin{array}{c} | \\ | \\ | \\ | \\ | \\ | \\ | \\ | \end{array} = \bigcirc$$



WORD COUNT OF ZACK'S ESSAY:

$$\begin{array}{c} \square \square \\ \square \square \square \end{array} - \begin{array}{c} \square \square \\ \square \square \end{array} \begin{array}{c} | \\ | \\ | \\ | \\ | \\ | \\ | \\ | \end{array} \begin{array}{c} \square \\ \square \end{array} = \bigcirc$$



WORD COUNT OF LINA'S ESSAY:

$$\begin{array}{c} \square \square \\ \square \square \square \end{array} - \begin{array}{c} \square \\ \square \\ \square \end{array} \begin{array}{c} | \\ | \\ | \\ | \\ | \\ | \\ | \\ | \end{array} \begin{array}{c} \square \square \\ \square \square \\ \square \square \end{array} \begin{array}{c} \square \\ \square \end{array} = \bigcirc$$



COUNT THE BLOCKS

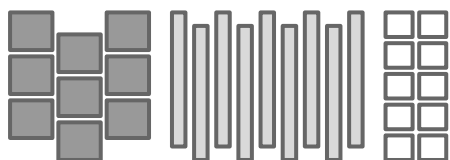
Let's build some classrooms. Using the base ten blocks, solve how many hollow blocks will be left when certain school facilities were built. Express your answer in base ten blocks.

The school currently owns 1000 blocks to be used for building school facilities. From that original count, of hollow blocks, subtract those that will be utilized for every structure to know the amount of remaining blocks.

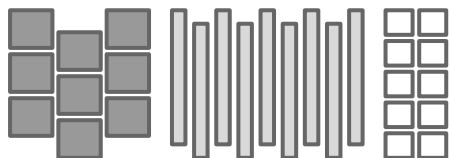


Solve for the blocks that will be left if the structures will be built.

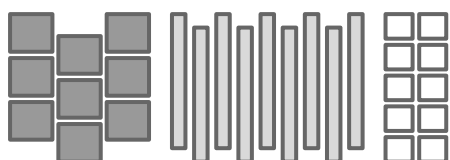
1. In building the school principal's office, **257** hollow blocks is to be used.



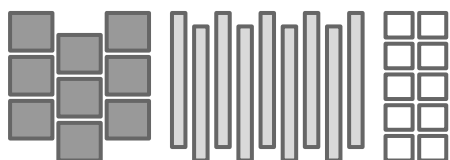
2. After constructing the building for Grade 6 pupil, **835** blocks were used.



3. The wall surrounding the playground is composed of **632** blocks.



4. Building a small computer lab requires **597** hollow blocks.



BE WISE WITH THE SUPPLIES

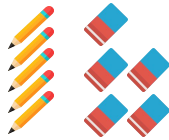
Yippee for the thrifty! Draw the supplies that were considered damaged based on the criteria.



A teacher grouped the class into three. Each group was given 5 activity books, 5 pencils and 5 erasers for each member to use. After one month, those activity books with ripped or crumpled pages, and pencils and erasers that were broken means deduction in the group's points. Determine what supplies were damaged by looking at each group's final points.

Pointing:  = 100 pts  = 10 pts  = 1 pt

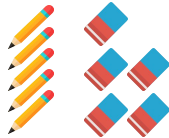
GROUP 1:



452
points



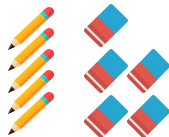
GROUP 2:



225
points



GROUP 3:



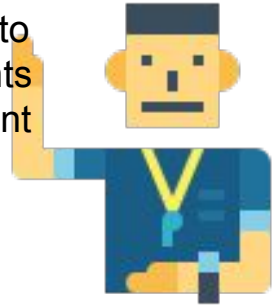
331
points



DON'T MISS THE TRIP

Time for a field trip! Count the names from every list then match it to the correct group with the same number of students who did not join the trip.

Hey kids! I am Mr. Ed. We're ready to go but we first need to check the attendance. I already have the list of the students who did not join the trip but I mixed the list from different groups. Help me arrange them so we can go immediately.



GROUP	TOTAL NO. OF STUDENTS PER GROUP	NO. OF STUDENTS WHO JOINED
-------	---------------------------------	----------------------------

Sample				List A <input type="checkbox"/> Kira
A				List B <input type="checkbox"/> Kenji <input type="checkbox"/> Paul
B				List C <input type="checkbox"/> Mark <input type="checkbox"/> Joshua <input type="checkbox"/> Anna
C		42 students		List D <input type="checkbox"/> Lou <input type="checkbox"/> Shin <input type="checkbox"/> Chen <input type="checkbox"/> Jaime
D		27 students		List E <input type="checkbox"/> Linda <input type="checkbox"/> Hans <input type="checkbox"/> Molly <input type="checkbox"/> Cole <input type="checkbox"/> Pelle



ONE BILL, ONE SUPPLY

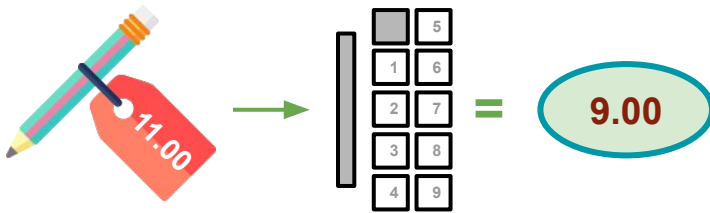
The class is about to start in a few days. Quick! Buy your supplies! With the help of the base ten blocks, compute how much change is left for every purchase.



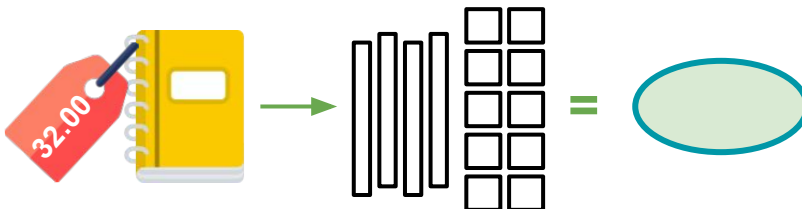
Hey, I am Mark. Help me compute the change for every purchase. The deal is that the customer availed one item for every kind of bill.

Shade those rods and/or blocks equal to the prices then count the unshaded ones to compute for the change.

ITEM NO. 1 : PENCIL bought with a twenty-peso bill.



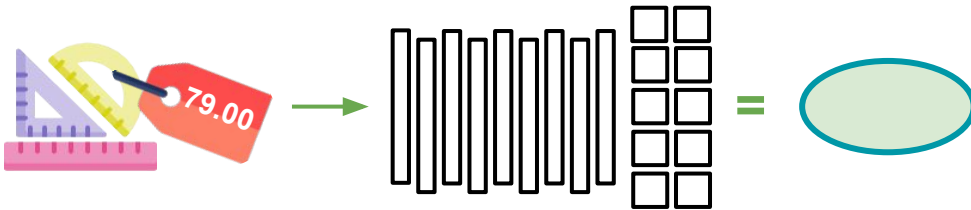
ITEM NO. 2 : NOTEBOOK bought with a fifty-peso bill.



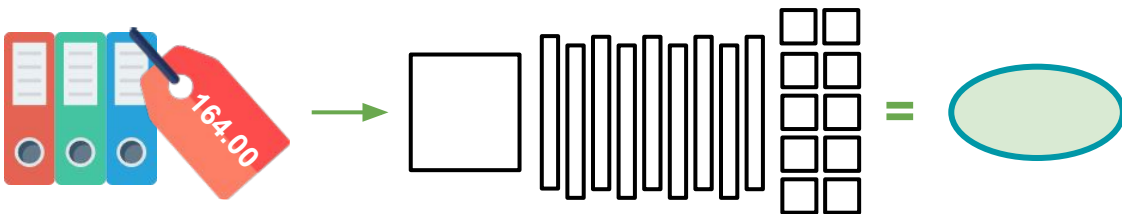
ONE BILL, ONE SUPPLY

[Continuation]

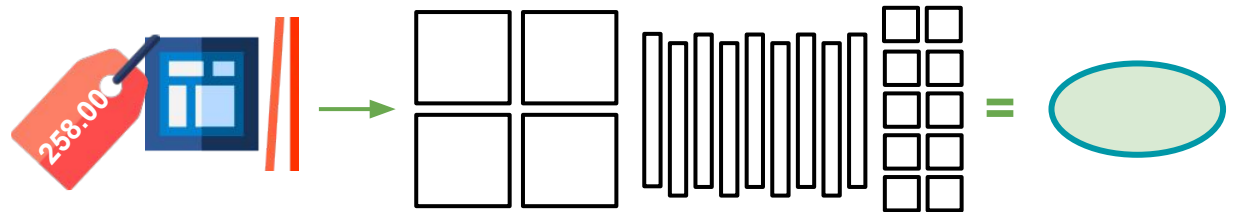
ITEM NO. 3 : RULER SET bought with a one hundred-peso bill.



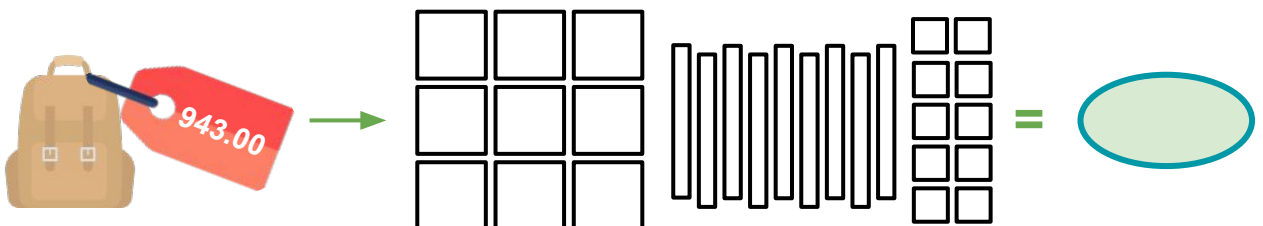
ITEM NO. 4 : FILE ORGANIZER bought with a two hundred-peso bill.



ITEM NO. 5 : BENTO BOX bought with a five hundred-peso bill.



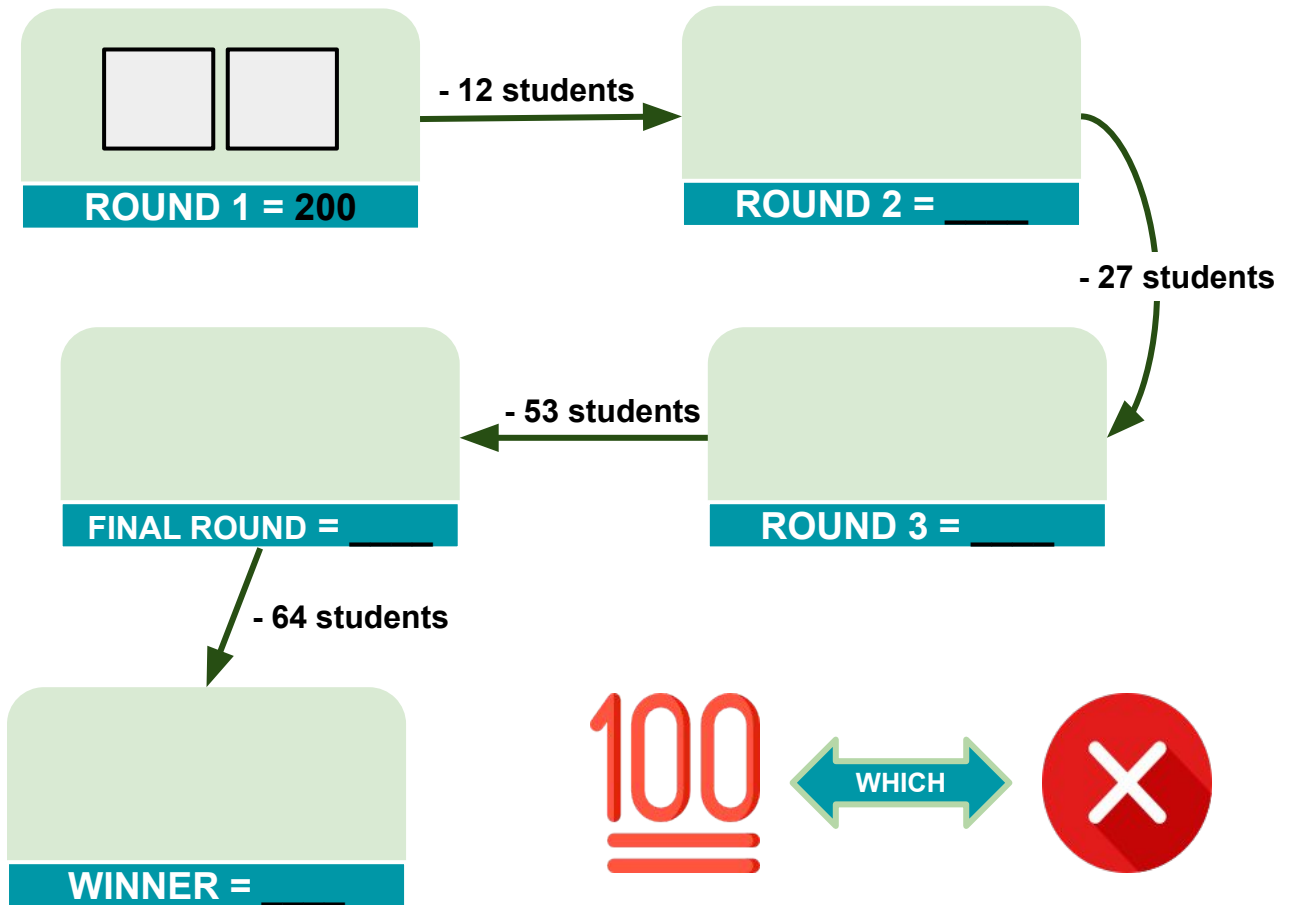
ITEM NO. 6 : BAG bought with a one thousand-peso bill.



GET IT ALL RIGHT

Get it all right, or lose! Solve how many students will be left after the final round by deducting those who did not qualify for each round.

Good day! I am Teacher Luke, a Math teacher. We decided to conduct a contest for all Grade 6 students. For every round, those who did not get the perfect score cannot proceed to the next round. Please give me a hand in knowing how many were left after the final round, so I can prepare the right amount of prizes.



SCHOOL BUS

Beep beep! The school bus is ready to drop the children in their homes. Track the load reduced from the bus everytime it stops.

The school bus was dropping children in the bus stops near their houses. Everytime it stops to drop, the load of the bus was being reduced by the children's weight. Track the reducing load as the bus sends the 10 children to their houses.

FIRST BUS STOP

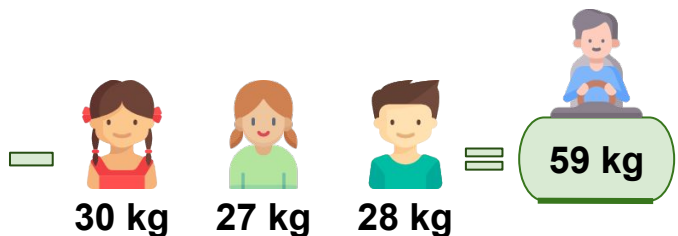


SECOND BUS STOP



Answer in FIRST BUS STOP
(in base-ten blocks)

THIRD BUS STOP



Answer in SECOND BUS STOP
(in base-ten blocks)



ENROLLMENT SLOTS

Enrolment is on! Fill in the table showing the information about the enrolment slots. Use your knowledge about subtracting numbers through base ten blocks.

Hi! I am Ms. Aida, a school registrar. Help me complete the table, so I can paste it in the announcement board.

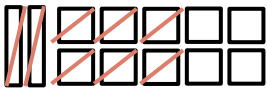



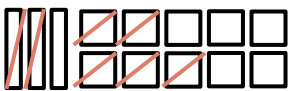
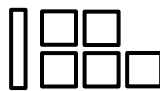
GRADE LEVEL	TOTAL SLOTS	TAKEN SLOTS	REMAINING SLOTS
Grade One		43 slots	
Grade Two			
Grade Three		119 slots	
Grade Four			
Grade Five		96 slots	
Grade Six			

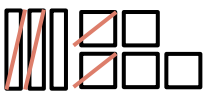
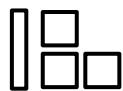



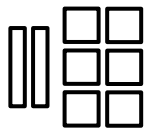
ANSWER GUIDE

Activity 1

Push-ups:  \rightarrow  = **4**

Squatting:  \rightarrow  = **15**

Curl Ups:  \rightarrow  = **13**

Jump Ropes:  \rightarrow  = **26**

Activity 2

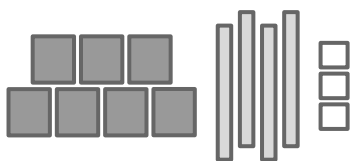
Clara = 100

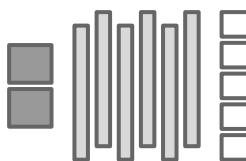
Rocky = 30


Zack = 47

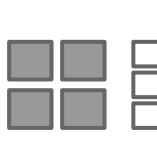
Lina = 152

Activity 3

1.) 

2.) 

3.) 

4.) 



ANSWER GUIDE

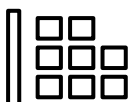
Activity 4




Activity 5

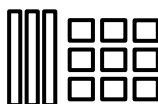
- A. List D
- B. List C
- C. List B
- D. List E

Activity 6


English = 

Science = 

Mathematics = 

History = 

Logical Reasoning = 

Abstract = 

Activity 7

Item 2: **18.00**

Item 3: **21.00**

Item 4: **164.00**

Item 5: **242.00**

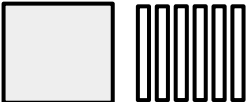
Item 6: **57.00**



ANSWER GUIDE

Activity 8

Round 2 :  = 188

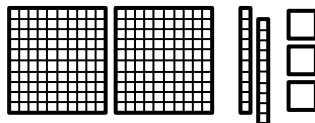
Round 3:  = 161

Final Round :  = 108

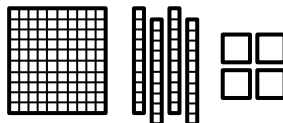
Winner :  = 44

Activity 9

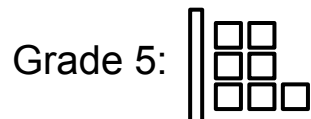
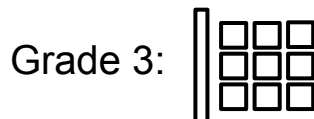
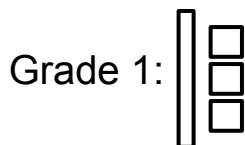
First Bus Stop = 223



Second Bus Stop = 144



Activity 10



Grade 2: **30 slots**

Grade 4: **80 slots**

Grade 6: **53 slots**



Copyright Notice

This resource is licensed under the [Creative Commons Attribution-NonCommercial 4.0](https://creativecommons.org/licenses/by-nc/4.0/) International license.

You are free to:

- **Share** – copy and redistribute the material in any medium or format
- **Adapt** – remix, transform, and build upon the material

Under the following terms:

- **Attribution** – You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
- **NonCommercial** – You may not use the material for commercial purposes.

For more information on this license, visit the following link:

<http://creativecommons.org/licenses/by-nc/4.0/>

Where possible, free-use images are sourced from online repositories such as Wikipedia and Wikimedia Commons. References and sources for images are provided in the speaker notes section of this document.

Thank you!



Thank you

Thank you so much for purchasing and downloading this resource.

We hope it has been useful for you in the classroom and that your students enjoy the activities.

For more teaching and homeschooling resources like this, don't forget to [come back](#) and download the new material we add every week!

Thanks for supporting **Helping With Math**. We can provide teachers with low-cost, high-quality teaching and homeschooling resources because of our loyal subscribers and hope to serve you for many years to come.

- The Entire Helping With Math Team :)

