## - Illustrative Mathematics

## Grade 4 Unit 4

Lesson 8
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## Unit 4 Lesson 8: Beyond 100,000

## WU How Many Do You See? (Warm up)

Student Task Statement
How many do you see? How do you see them?


## 1 Lin's Representation

Student Task Statement

1. Use base-ten blocks or draw a base-ten diagram to represent 15,710.
2. Lin is using blocks like these to represent 15,710 . She decided to change the value of the small cube to represent 10.


What is the value of each block if the value of the small cube is 10 ?
a. Small cube: 10
b. Long rectangular block: $\qquad$
c. Large square block: $\qquad$
d. Large cube: $\qquad$
3. Use Lin's strategy to represent 15,710.
4. Use Lin's strategy to represent each number.
a. 23,000
b. 58,100
c. 69,470
5. Using her strategy, which base-ten blocks would be used to represent 100,000 ?

## 2 What Number is Represented?

Student Task Statement


1. A small cube represents 1 . What value do the blocks in the picture represent?
2. A small cube is now worth 10 . What is the new value that the blocks in the picture represent?
3. Write two statements comparing the numbers in the previous problems.

## 3 Build Hundred-thousands

## Student Task Statement

1. To represent large numbers, Lin changed the value of the small cube to 10 . She used the following blocks to represent her first number.

| type of block |  |  | 日 | $\square$ |
| :---: | :---: | :---: | :---: | :---: |
| number of blocks used | 4 | 9 | 8 | 3 |

a. What number did Lin represent? Show or explain your reasoning.
b. Write an equation to represent the value of the blocks.
2. She used more blocks to represent another number.

a. What number did Lin represent? Show or explain your reasoning.
b. Write an equation to represent the value of the blocks.

