## Lesson 8: Beyond 100,000

* Let’s read, write, and represent numbers beyond 100,000.

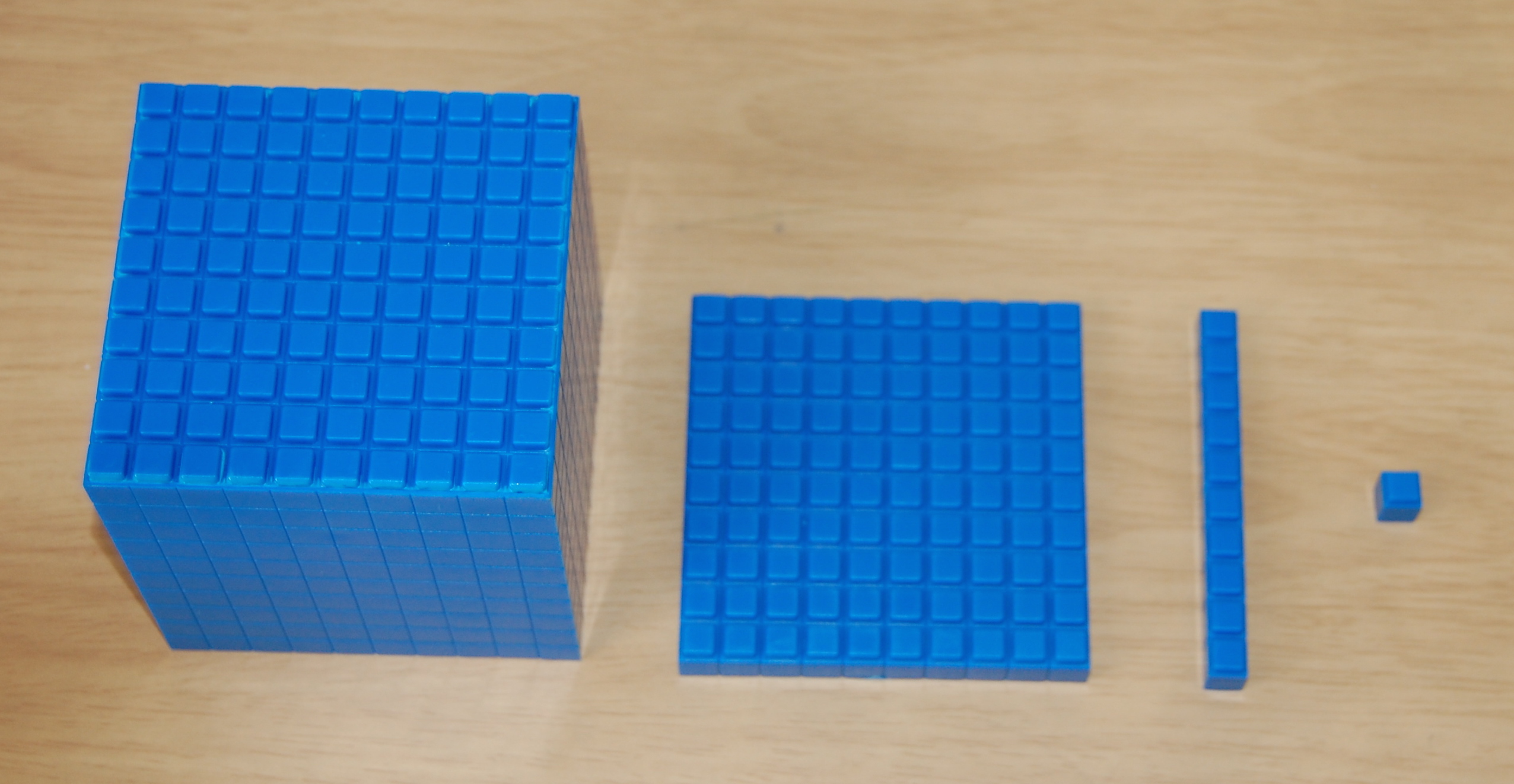
### Warm-up: How Many Do You See?

How many do you see? How do you see them?



### 8.1: Lin’s Representation

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?
  1. Small cube: 10
  2. Long rectangular block: \_\_\_\_\_\_\_\_\_\_
  3. Large square block: \_\_\_\_\_\_\_\_\_\_
  4. Large cube: \_\_\_\_\_\_\_\_\_\_

1. Use Lin’s strategy to represent 15,710.
2. Use Lin’s strategy to represent each number.
   1. 23,000
   2. 58,100
   3. 69,470
3. Using her strategy, which base-ten blocks would be used to represent 100,000?

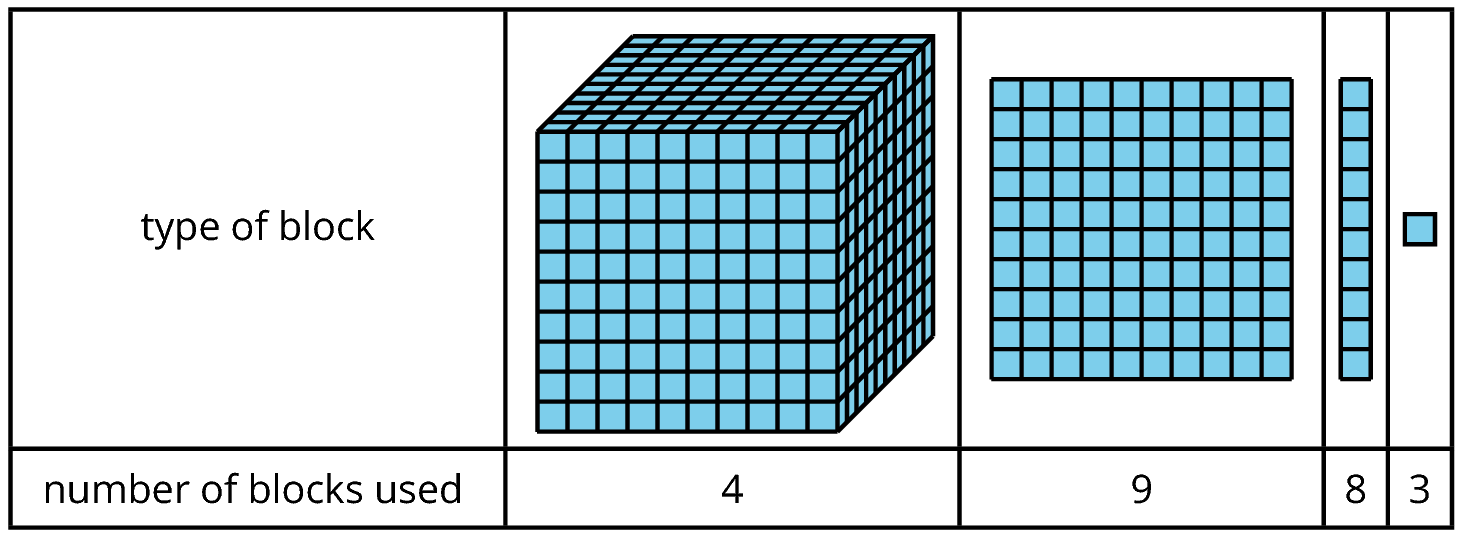
### 8.2: What Number is Represented?



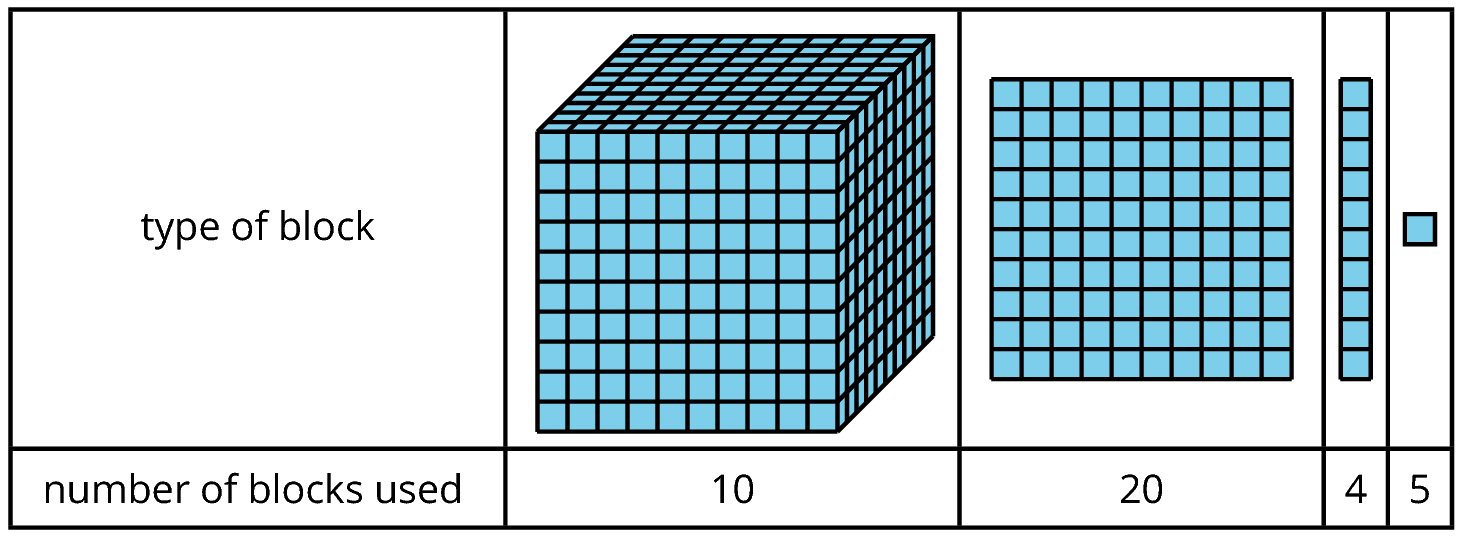
1. A small cube represents 1. What value do the blocks in the picture represent?
2. A small cube is now worth 10. What is the new value that the blocks in the picture represent?
3. Write two statements comparing the numbers in the previous problems.

### 8.3: Build Hundred-thousands

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.

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

1. She used more blocks to represent another number.

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



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