# (1) Representing Four-Digit Numbers Using Thousands, Hundreds, or Tens 

## Using Base Ten Block Models



You can use this information to rename a number in different ways.
For example:
8000 is 8 thousands, 80 hundreds, or 800 tens.
1200 is 12 hundreds, or 120 tens.
3450 is 345 tens.
700 is 7 hundreds, or 70 tens.
670 is 67 tens.

## Using Place-Value Chart Modeis

From the examples above, you can see the following:

- Any number like $\square 000$ is $\square$ thousands, $\square 0$ hundreds, or $\square 00$ tens.

For example, 6000 is 6 thousands, 60 hundreds, or 600 tens.

| Thousands | Hundreds | Tens | Ones |
| :---: | :---: | :---: | :---: |
| 6 | 0 | 0 | 0 |
|  | 60 | 0 | 0 |
|  |  | 600 | 0 |

- Any number like $\square \square 00$ is $\square \square$ hundreds or $\square \square 0$ tens. For example, 7800 is 78 hundreds or 780 tens.

| Thousands | Hundreds | Tens | Ones |
| :---: | :---: | :---: | :---: |
| 7 | 8 | 0 | 0 |
|  | 78 | 0 | 0 |
|  |  | 780 | 0 |

- Any number like $\square \square \square 0$ is $\square \square \square$ tens.

For example, 1230 is 123 tens.

| Thousands | Hundreds | Tens | Ones |
| :---: | :---: | :---: | :---: |
| 1 | 2 | 3 | 0 |
|  |  | 123 | 0 |

- Any number like $\square 00$ is $\square$ hundreds or $\square 0$ tens.

For example, 500 is 5 hundreds or 50 tens.

| Thousands | Hundreds | Tens | Ones |
| :--- | :---: | :---: | :---: |
|  | 5 | 0 | 0 |
|  |  | 50 | 0 |

## Using Place-Value Chart Models (continued)

- Any number like $\square \square 0$ is $\square \square$ tens.

For example, 580 is 58 tens.

| Thousands | Hundreds | Tens | Ones |
| :---: | :---: | :---: | :---: |
|  | 5 | 8 | 0 |
|  |  | 58 | 0 |

## Notes

It might seem simpler to tell students that, for example, if a number has two zeros, it means it is a certain number of hundreds or tens, or if a number has three zeros, it means it is a certain number of thousands, hundreds, or tens. However, students who understand why thousands can be renamed as hundreds or tens or why hundreds can be renamed as tens will have greater success with simplifying calculations.

For example, to calculate the following expression using mental math, a student could think the following:

```
300-60=30 tens - 6 tens
    =24 tens, which is 240
```

This helps students see that they can use a simpler calculation such as $30-6$ when they calculate 300-60.

## Definitions

rename: to write a number in a different way without changing its value; for example, 3000 can be renamed as 30 hundreds, and 450 can be renamed as $400+50$

