

Place Value

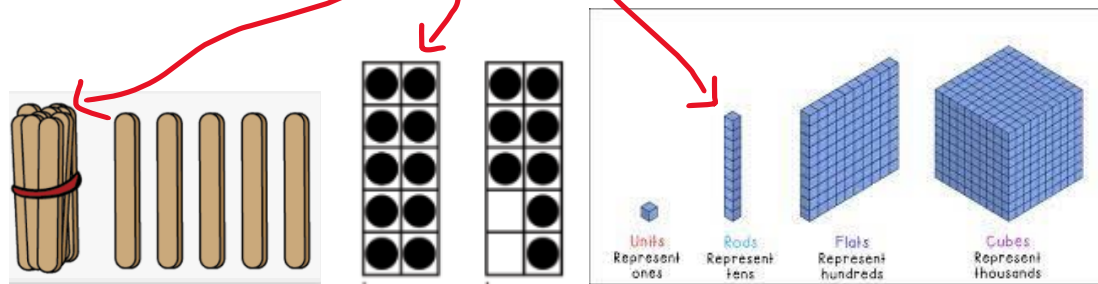
Continue with hundreds chart. Find patterns
Skip count

Find numbers and ask student to make numbers with base ten blocks

If student struggles with base ten blocks, have them begin with popsicle sticks or stir sticks. Have them count out a large number and bundle tens. Ask for more large numbers, and help the student realize its easier to grab groups of tens.

Once we understand bundling tens we can move to base ten blocks.

Make sure the student understands different representations of ten all mean the same thing



Discuss: Why is ten a special number? We have exactly ten symbols (numerals) that represent quantity.

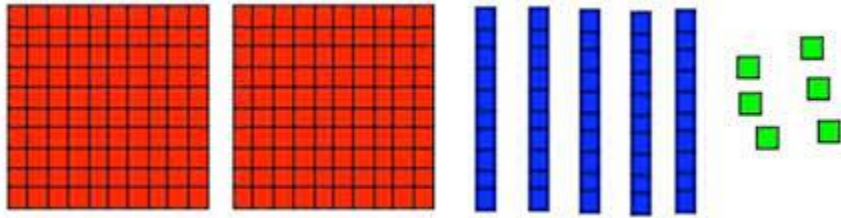
0,1,2,3,4,5,6,7,8, and 9.

When we reach "10" we are reusing symbols. The "1" means something different when it is in a different spot in the number.

Make large numbers with base ten blocks and write the number. Realize what each digit means according to where it is in the number (place value).

Teach "expanded form".

Example



This is the number 256. The two is three digits left, it means 2 hundred

The 5 is 2nd digit left. It means 5 tens.

The 6 is in the ones spot

Write expanded form

$$200 + 50 + 6$$

Standard form 256

Create large numbers and ask the student to build them.

Add thousands cube when student is ready.

What is the largest number we can have in any place? 9. Once we are bigger than 9, we start using the next column left and reusing symbols.

Ten ones is one ten.

Ten tens is one hundred.

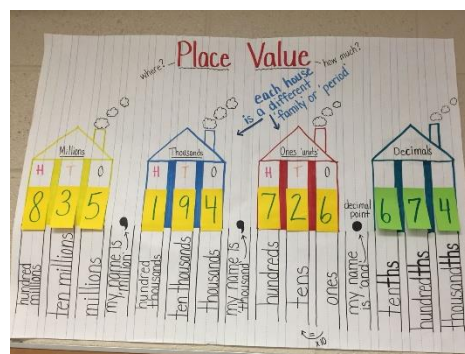
Ten hundreds is one thousand. And so on

IF the student is ready, teach the place value system. It is important to teach this as "periods"...a repeating family. We always say "hundreds tens ones" but we follow that with the family's "last name"..ones, thousands, millions, billions and so on.

WHOLE NUMBERS									FRACTIONS		
MILLIONS FAMILY			THOUSANDS FAMILY			ONES FAMILY			DECIMALS FAMILY		
hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones	tenths	hundredths	thousandths

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PLACE VALUE MAT: HUNDRED MILLIONS to THOUSANDTHS



Ask the value of digits in large numbers:

Vocabulary:

Digit

Number (quantity)

Numeral (symbol)

Place

Value

Practice saying large numbers

468 287 387

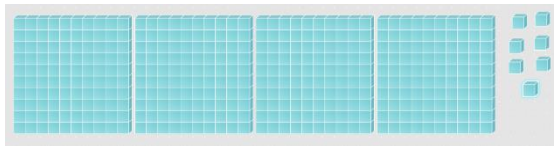
Four hundred sixty eight....*Million*

Two hundred eighty seven ...*Thousand*

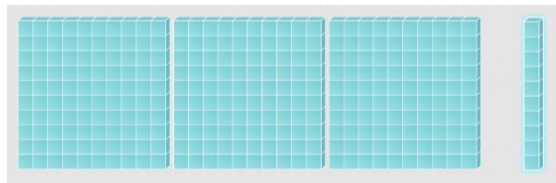
Three hundred eighty seven

Practice numbers with zeros in some places, and make these with base ten blocks.
(virtual <https://www.didax.com/apps/base-ten-blocks/>)

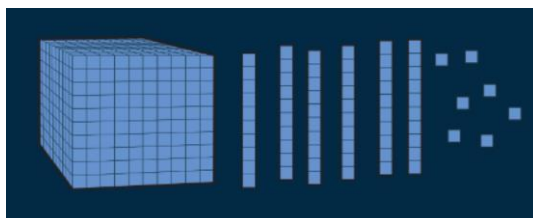
407



310



1 067



Etc

Name: _____ Date: _____	
H= Hundreds T= Tens O= Ones	
What place value is the underlined number in?	
<u>4</u> 56 = ____	2 <u>5</u> 3 = ____
74 <u>5</u> = ____	69 <u>8</u> = ____
93 <u>4</u> = ____	1 <u>4</u> 2 = ____
<u>2</u> 13 = ____	<u>3</u> 25 = ____
50 <u>6</u> = ____	<u>4</u> 83 = ____
<u>3</u> 24 = ____	97 <u>2</u> = ____