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Forms of Multi-digit Numbers

Review

Number form: 6,025,426

Word form: six million, one hundred twenty-five thousand, four hundred twenty-six

Expanded form: 6,000,000 + 100,000 + 20,000 + 5,000 + 400 + 20 + 6

Commas are used to show groupings of numbers

6,125,426

How many thousands are in the number?

How many hundreds are in the number?

How many hundred thousands are there?

How many millions are there?

Numeral Periods & Expanded Number Notation

8,347,592

Millions Period			Thousands Period			Hundreds Period		
Hundreds	Tens	Ones	Hundreds	Tens	Ones	Hundreds	Tens	Ones
		8	3	4	7	5	9	2

Understanding numeral periods and the commas that separate them will help us with learning Expanded Number Notation!

- In our last lesson we learned about expanded form that looked like this:

  8,000,000 + 300,000 + 40,000 + 7,000 + 500 + 90 + 2

- In this lesson we'll break it down even further into expanded notation which looks like this:

  (8x1,000,000) + (3x100,000) + (4x10,000) + (7x1,000) + (5x100) + (9x10) + (2x1)

Expanded Number Notation

426,512

Hundred thousands: 4 x 100,000

Ten thousands: 2 x 20,000

Thousands: 6 x 1,000

Hundreds: 5 x 100

Tens: 1 x 10

Ones: 2 x 1

(4 x 100,00) + (2 x 20,000) + (6 x 1,000) + (5 x 100) + (1 x 10) + (2 x 1)

Let's try this number 2,375,014

Millions: 2 x 1,000,000

Hundred thousands: 3 x 100,000

Ten thousands: 7 x 10,000

Thousands: 5 x 1,000

Hundreds: 0 x 100

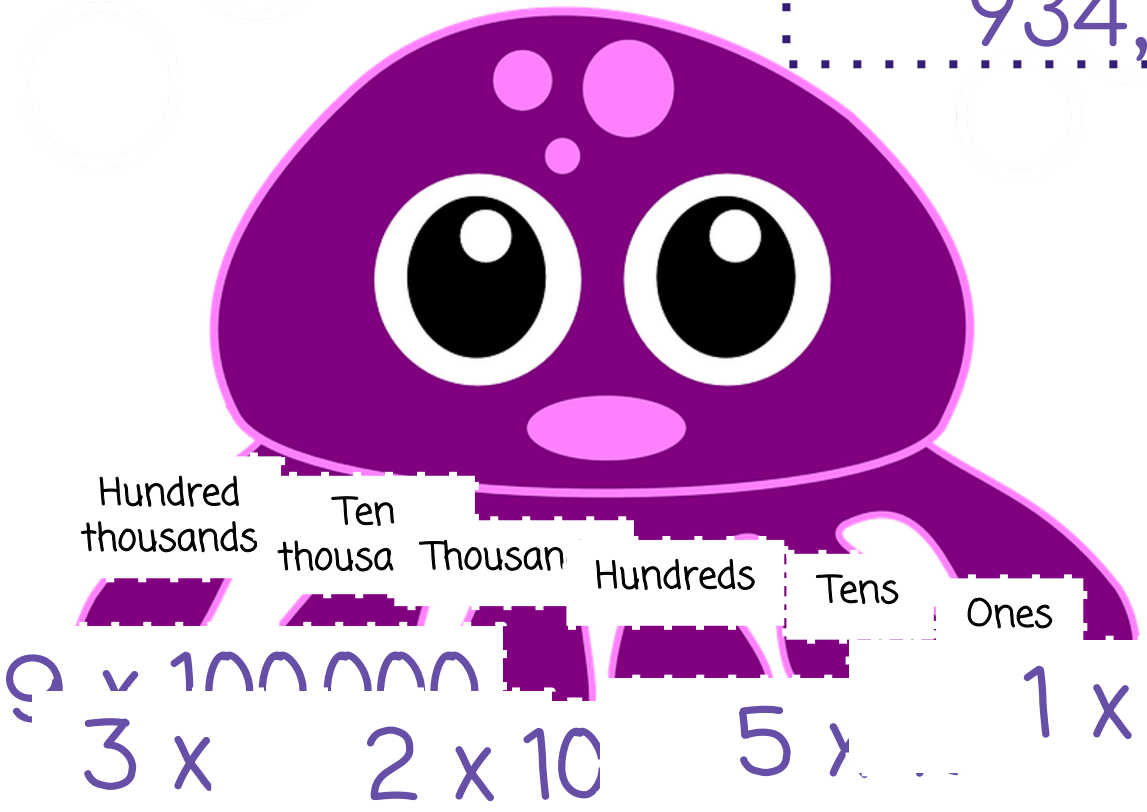
Tens: 1 x 10

Ones: 4 x 1

Notice that we leave the hundreds place out because we don't have any hundreds in this number!

$$(2 \times 1{,}000{,}000) + (3 \times 100{,}000) + (7 \times 10{,}000) + (5 \times 1{,}000) + (1 \times 10) + (4 \times 1)$$

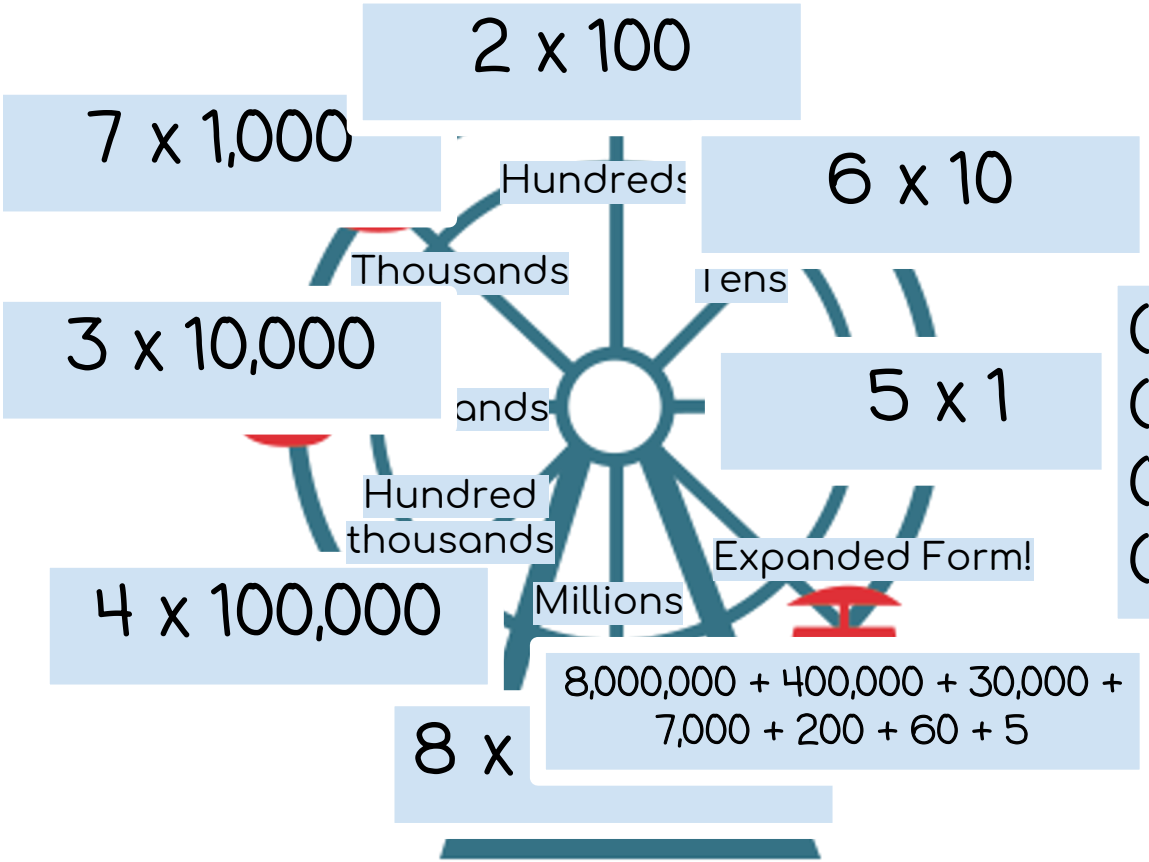
Let's expand!
934,251



(9x100,000) +
(3x10,000) +
(4x1,000) + (2x100) +
(5x10) + (1x1)

Let's try this one!

8,437,265



Expanded Notation!

(8x1,000,000) +
(4x100,000) + (3x10,000) +
(7x1,000) + (2x100) +
(6x10) + (5x1)

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