Resource Page

NBT.1 Place Value

Goal: To understand that in multi-digit numbers, a digit in one place represents $\underline{10 \text{ times}}$ what it represents in the place to its $\underline{\text{right}}$ and $\frac{1}{10}$ of what it represents in the place to its $\underline{\text{left.}}$

Vocabulary:

Tenths, hundredths, thousandths: The names of the decimal place.

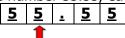
Example: 4.563

Four *and* five hundred sixty three thousandths

Ones	Decimal Point	Tenths	Hundredths	thousandths
4		5	6	3

Example 1: Compare the value of the digits in the tenths and hundredths place.

In the number 55.55, each digit is 5, but the value of the digits is different because of the **placement**.

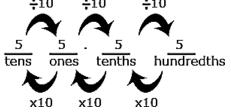


The 5 that the arrow points to is $\frac{1}{10}$ of the 5 to the left and 10 times the 5 to the right.

The 5 in the ones place is 1/10 of 50 and 10 times five tenths.

The 5 that the arrow points to is $\frac{1}{10}$ of the 5 to the left and 10 times the 5 to the right.

The 5 in the tenths place is 10 times five hundredths. $\div 10 \quad \div 10 \quad \div 10$



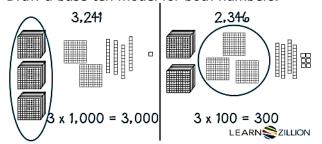
The 5 in the **tenths** place is **10 times** the 5 in the **hundredths** place.

The 5 in the **hundredths** place is $\frac{1}{10}$ of the 5 in the **tenths** place.



Example 2: What is the value of the 3 in 3,241 and in 2,346?

Draw a base-ten model for both numbers.



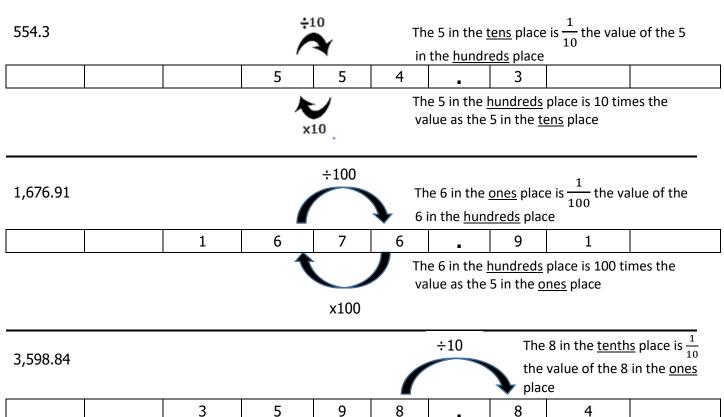
Explanation:

The 3 in 3,241 is 10 times the value as 3 in 2,346.

Explanation:

The 3 in 2,346 is $\frac{1}{10}$ the value as 3 in 3,241.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths	Thousandths
100,000	10,000	1,000	100	10	1	• "and"	.1 - or - 1 10	.01 - or - 1 100	.001 - or - 1 1,000



x10

The 8 in the <u>ones</u> place is 10 times the 8 in the <u>tenths</u> place

Value verses Place Value:

202	Hundreds	Tens	Ones
3 <u>8</u> 2	3	8	2

What is the <u>value</u> of the 8? <u>Answer:</u> 80 or 8 tens What is the <u>place value</u> of the 8? <u>Answer:</u> tens

7.204	Thousands	Hundreds	Tens	Ones
/, <u>3</u> 94	7	3	9	4

What is the <u>value</u> of the 3? <u>Answer:</u> 300 or 3 hundreds What is the <u>place value</u> of the 3? <u>Answer:</u> hundreds