



Roots of Reason

Place Value: Ones to Hundreds

Where a digit sits decides what it is worth.

Hundreds	Tens	Ones
3	5	4
3 hundreds = 300	5 tens = 50	4 ones = 4

$$300 + 50 + 4 = 354$$

Same digit, different place, different value: a 3 in the hundreds place is worth 300, and one place to the right it would be worth 30.

YOUR TURN: WRITE THREE NUMBERS, THEN SAY THE VALUE OF EACH DIGIT

Hundreds	Tens	Ones



Roots of Reason

Place Value: To the Hundred Thousands

Digits are read in groups of three, called periods. Read each group, then say its period name.

THOUSANDS PERIOD			ONES PERIOD		
Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
4	5	8,	6	0	4
400,000	50,000	8,000	600	0	4

$$400,000 + 50,000 + 8,000 + 600 + 4 = 458,604$$

Read it: "four hundred fifty-eight **thousand**, six hundred four." The 0 adds nothing, but it holds the tens place.

YOUR TURN: WRITE THREE NUMBERS, WITH A COMMA AFTER THE THOUSANDS PERIOD

H-Th	T-Th	Th	H	T	O



Roots of Reason

Place Value: Decimals

The pattern continues past the point. Every place is ten times the one to its right.

← $\times 10$ each place

$\div 10$ each place →

WHOLE NUMBERS				.	DECIMAL PLACES		
Thousands	Hundreds	Tens	Ones		Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$
2, 2,000	4 400	8 80	3 3	.	1 0.1	5 0.05	6 0.006

$$2,000 + 400 + 80 + 3 + 0.1 + 0.05 + 0.006 = 2,483.156$$

Read the point as "and": "two thousand four hundred eighty-three **and** one hundred fifty-six **thousandths**."

YOUR TURN: THE POINT IS ALREADY PLACED

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