

Place Value Cards

Gaining an understanding of place value is key to developing the fundamentals of number sense. Place Value Cards help build an understanding of place value and the value of digits. All Sensational Math™ place value teaching aids use the same place value color-coding system for easy visual reference to values, which helps develop number sense.

MATHEMATICAL FORMS – STANDARD, WORD, & EXPANDED

Steps:

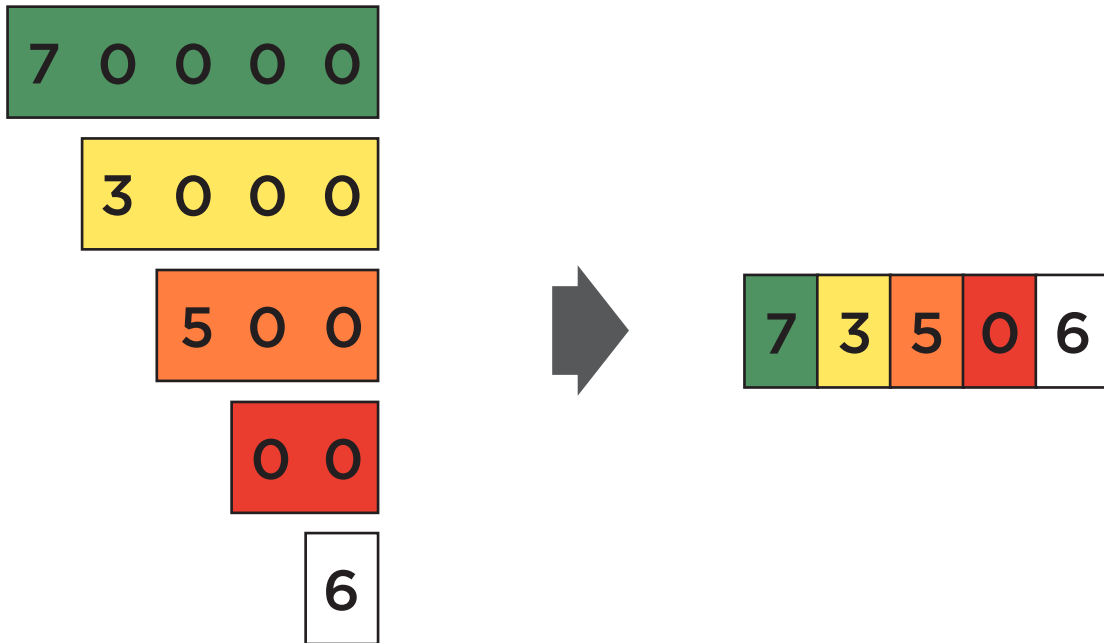
1. The teacher creates a number with the Place Value Cards, demonstrating how to build a number.
2. Students then follow the oral prompts:
 - Write the number.
 - Say the number.
 - Write the number in expanded form: (e.g., $300 + 70 + 1$)



COMPOSE AND DECOMPOSE QUANTITIES

Steps:

1. The teacher creates 73,506 using Place Value Cards, demonstrating how to build a number.



2. Students then follow the oral prompts:
 - Write the number.
 - Say the number.
 - Write the number in expanded form.
 - Record the number of thousands.
 - Record the number of tens.
 - Record the number of ones.

BUILD IT

The teacher uses any of these three activities to help develop number sense.

- A. A quantity is written on the board, and students build the quantity using Place Value Cards.
- B. A quantity is read out loud, and students build the quantity using Place Value Cards.
- C. The word form of a quantity is written on the board, and students build the quantity using Place Value Cards.

BUILD IT—FRACTION/DECIMALS

A mixed number is written on the board, and students build the decimal equivalency.

Example: Build $4 \frac{6}{10}$.



MORE/LESS

Using the “units”, “tenths”, and “hundredths” Place Value Cards only, create a number...

- 3 tenths more than 4.5
- 3 hundredths more than 4.98
- 0.03 more than 5.64
- 2 times 3.24
- One-fourth of 8.48

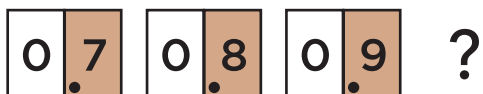
COUNTING/NUMBER LINES

- A. Using Place Value Cards, orally count, creating a number line.
Display each quantity while students count.

Example: Count by tenths. Starting with 0,
hang each tenth on the board while counting.



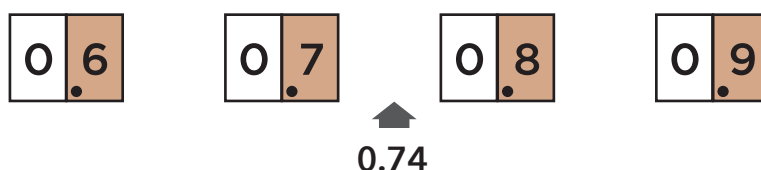
Ask: What quantity will follow nine tenths?



- B. Randomly distribute several Place Value Cards and have students create a standing number line. Have them look for patterns to fill in any blanks in the number line.

- C. Hang all the tenths cards on the board to create a number line.
Provide students with numbers to plot on the number line.

Example: Plot 0.74 on the number line.



COMPARING – PLACE VALUE CAPTURE

Spread some Place Value Cards face down on a work surface. Have each student randomly pick five cards of different lengths to create a five digit number. Students should stack the numbers to compare the quantities. The person with the largest quantity wins all the cards for that round.



WHO HAS?

Randomly distribute the Place Value Cards* and ask questions such as:

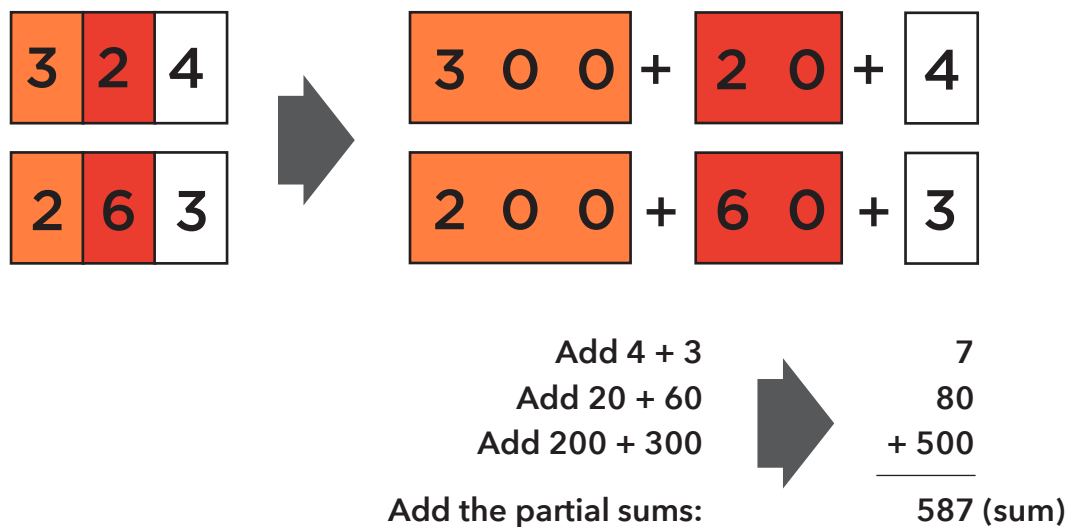
- Who has 10 more than 60?
- Who has $600,000 + 200,000 - 100,000$?
- Who has three tenths more than one and four tenths?

**Limit the distribution to a reasonable quantity.*

PARTIAL ADDENDS

Use Place Value Cards to create an addition problem. Add one place value column at a time. Write each partial sum below the problem. Then add all the partial sums to find the final sum.

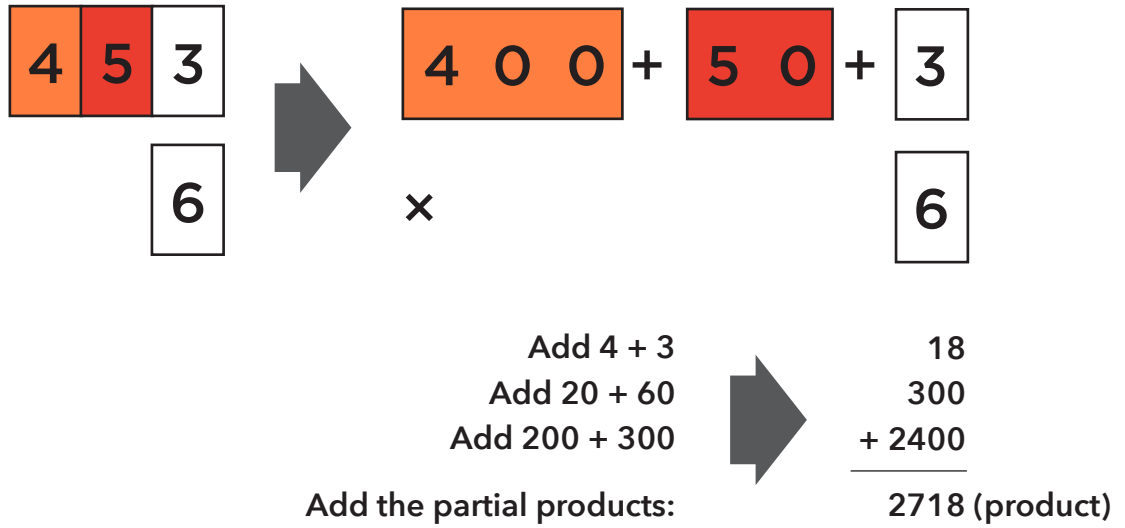
Example: $324 + 263$



PARTIAL PRODUCTS – MULTIPLICATION

Use Place Value Cards to create a multiplication problem. Multiply each digit in the bottom factor by each digit in the top factor. Add all of the partial products to find the total product.

Example: 453×6



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