

The value of digits

Face value is what you see when you look at the digit.

Place value is the name of the column in which the digit is placed.

Numerical Value is how much the digit is worth.

Use the information provided to complete the tables below.

In the number 23, 698

Digit	Face Value	Place Value	Numerical Value
2	2		
6			600
8		ones	
9	9		
3			3000

Expanding Numbers

To expand a number means to stretch the number out. Each digit is represented by its numerical value.

Example: $8549 =$ 8 thousand + 5 hundred + 4 tens + 9 ones

$$\begin{aligned}
 &= (8 \times 1000) + (5 \times 100) + (4 \times 10) + (9 \times 1) \\
 &= 8000 + 500 + 40 + 9
 \end{aligned}$$

Expand these two numbers

❖ 5289 = ____ thousand + ____ hundred + ____ tens + 9 ones
= (5×1000) + $(2 \times \underline{\hspace{2cm}})$ + $(8 \times \underline{\hspace{2cm}})$ + $(9 \times \underline{\hspace{2cm}})$
= $\underline{\hspace{2cm}}$ + 200 + $\underline{\hspace{2cm}}$ + $\underline{\hspace{2cm}}$

❖ 6442 = ____ thousand + 4 hundred + ____ tens + ____ ones

$$= (6 \times \text{_____}) + (4 \times \text{_____}) + (4 \times 10) + (2 \times \text{_____})$$

$$= 6000 + \text{_____} + \text{_____} + \text{_____}$$

❖ 41,073 =

____ ten thousand + 1 thousand + ____ hundred + 7 tens + ____ ones

$$= (4 \times \text{_____}) + (1 \times \text{_____}) + (0 \times 100) + (7 \times \text{_____}) + (3 \times 1)$$

$$= \text{_____} + \text{_____} + \text{_____} + \text{_____} + 3$$