

Numbers in Expanded Form

Numbers in expanded form

Representing the number as a sum of the place values of each digit in a number in the expanded form of a number.

For example:

Expanded form of 1563

$$\begin{aligned} 1563 &= 1 \text{ Thousand } 5 \text{ hundreds } 6 \text{ tens } 3 \text{ ones} \\ &= 1000 + 500 + 60 + 3 \end{aligned}$$

Expanded form of 1563

$$1000 + 500 + 60 + 3$$

Example 1:

Expanded form of 8506

Solution:

$$\begin{aligned} 8506 &= 8 \text{ Thousands } 5 \text{ hundreds } 0 \text{ ten } 6 \text{ ones} \\ &= 8000 + 500 + 0 + 6 \\ &= 8000 + 500 + 6 \end{aligned}$$

Expanded form of 8506

$$8000 + 500 + 6$$



Example 2:

Expanded form of 7623

Solution:

Thousands	Hundreds	Tens	Ones
TH	H	T	O
7 X 1000	6 X 100	2 X 10	3 X 1
7000	600	20	3

Expanded form of 7623

$$7000 + 600 + 20 + 3$$

Example 3:

Expanded form of 3890

Solution:

Thousands	Hundreds	Tens	Ones
TH	H	T	O
3 X 1000	8 X 100	9 X 10	0 X 1
3000	800	90	0

Expanded form of 3890

$$3000 + 800 + 90$$



Example 4:

Expanded form of 4018

Solution:

$$\begin{aligned} 4018 &= 4 \text{ Thousands } 0 \text{ hundreds } 1 \text{ ten } 8 \text{ ones} \\ &= 4 \times 1000 + 0 \times 100 + 1 \times 10 + 8 \times 1 \\ &= 4000 + 0 + 10 + 8 \end{aligned}$$

Expanded form of 4018

$$4000 + 10 + 8$$

Example 5:

Expanded form of 5934

Solution:

$$\begin{aligned} 5934 &= 5 \text{ Thousands } 9 \text{ hundreds } 3 \text{ tens } 4 \text{ ones} \\ &= 5 \times 1000 + 9 \times 100 + 3 \times 10 + 4 \times 1 \\ &= 5000 + 900 + 30 + 4 \end{aligned}$$

Expanded form of 5934

$$5000 + 900 + 30 + 4$$

