

Evaluating Numerical Expressions with Exponents- Guided Lesson Explanation**Explanation#1**

The exponent of a number tells you how many times it should be multiplied by itself.

In 6^5 the "5" says to multiply 6 by itself 5 times,
so $6^5 = 6 \times 6 \times 6 \times 6 \times 6 = 7776$

So, the answer is 7776.

Explanation#2

The exponent of a number tells you how many times it should be multiplied by itself.

In 7^4 the "4" says to multiply 7 by itself 4 times,
so $7^4 = 7 \times 7 \times 7 \times 7 = 2,401$

In 9^6 the "6" says to multiply 9 by itself 6 times,
so $9^6 = 9 \times 9 \times 9 \times 9 \times 9 \times 9 = 531,441$

Step 3) Now we can add this number.

$2,401 + 531,441 = 533,842$ So, the answer is 533,842.

Explanation#3

Using the same concept we find the value of each number and then calculate the difference.

In 8^4 the "4" says to multiply 8 by itself 4 times,
so $8^4 = 8 \times 8 \times 8 \times 8 = 4096$

In 3^7 the "7" says to multiply 3 by itself 7 times,
so $3^7 = 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 = 2187$

Step 3) Now we can subtract this number.

$4096 - 2187 = 1909$ So, the answer is 1909.

