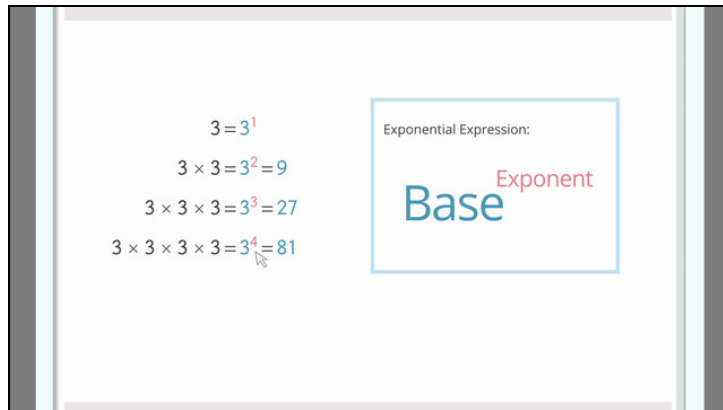


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# Writing and Evaluating Expressions with Exponents



- 1 Label the base as well as the exponent.
- 2 Show how to write the given situation as an exponential expression.
- 3 Express the following problem as a mathematical expression.
- 4 Explain how to transform the word problems.
- 5 Find the right exponential expression.
- 6 Determine the corresponding expression.
- + with many hints, answer keys, and solution approaches for all tasks



The complete package, **including all tasks, hints, solutions, and solution approaches**, is available to all subscribers of [sofatutor.com](https://www.sofatutor.com)

## Label the base as well as the exponent.

Fill in the blanks.

**1**      $3^2 = 9$

Here   1   is the base and   2   is the exponent.

**2**      $3^3 = 27$

Here   3   is the base and   4   is the exponent.

**3**      $3^x$

Here   5   is the base and   6   is the exponent.

**4**      $5^3$

Here   7   is the base and   8   is the exponent.

## Our hints for the tasks

1  
from 6

### Label the base as well as the exponent.

#### 1. Hint

The exponent is the number of times you multiply the base by itself.

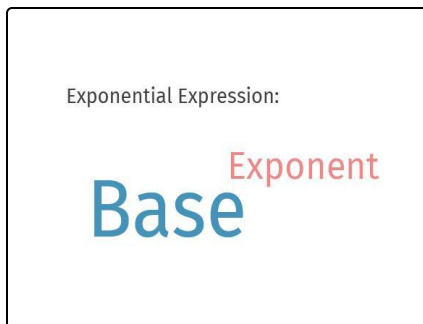
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#### 2. Hint

In general a power is given by  $a^n$ , where  $a$  stands is the base of the power.

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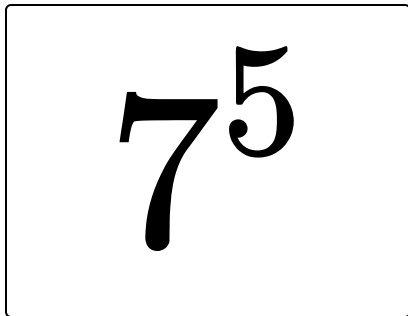
#### 3. Hint



Keep the meaning of the corresponding positions in mind.

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#### 4. Hint



In the example beside, 7 is the base while 5 is the exponent.

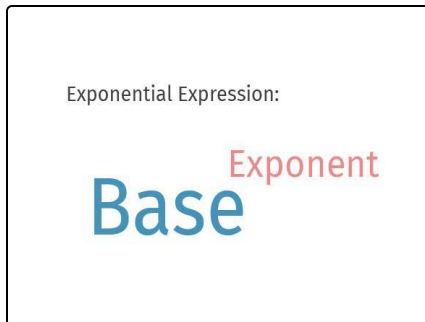
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## Solutions and solution approaches for the tasks

1  
from 6

### Label the base as well as the exponent.

**Answer key:** 1: 3 // 2: 2 // 3: 3 // 4: 3 // 5: 3 // 6: x // 7: 5 // 8: 3



In general a power is given by  $a^n$ , where  $a$  is called the base and  $n$  is called the exponent.

You can read it as  **$a$  raised to the power of  $n$ .**