

Evaluating Exponents

Evaluate each exponent. Show your work.



$6^2 = \underline{36}$	$4^3 = \underline{64}$
$2^4 = \underline{16}$	$7^3 = \underline{343}$
$3^5 = \underline{243}$	$5^4 = \underline{625}$
$\left(\frac{1}{3}\right)^3 = \underline{\frac{1}{27}}$	$\left(\frac{2}{5}\right)^2 = \underline{\frac{4}{25}}$
$0.9^2 = \underline{0.81}$	$0.6^3 = \underline{0.216}$

Challenge: How do you find 3^0 ? Let's try it. First, fill in the blanks to evaluate the exponents.

3^0	3^1	3^2	3^3	3^4
?	<u>3</u>	<u>9</u>	<u>27</u>	<u>81</u>

Answers may vary.

Now, look at your answers. What pattern do you see when moving from right to left?

You can divide each answer by 3 to get the answer to its left.

How can you use this pattern to find 3^0 ? $3 \div 3$

So, what is 3^0 ? 1

