

Exponent Patterning

1. Complete the table below, looking for a pattern using base of 10

Power	Expanded form	Value	Ratio of expanded forms
10^5	$10 \times 10 \times 10 \times 10 \times 10$	100000	$\frac{10 \times 10 \times 10 \times 10 \times 10}{10 \times 10 \times 10 \times 10} = 10$
10^4	$10 \times 10 \times 10 \times 10$	10000	
10^3			
10^2			
10^1			
10^0			
10^{-1}			
10^{-2}			
10^{-3}			
10^{-4}			
10^{-5}			

2. Explain what the ratios in the expanded form shows

3. Describe any patterns you notice in the table.