

COUNTDOWN CHALLENGE

Comparing Exponential Values

Which is larger?

Standard	Multiplication	x^y	< or >	y^x	Multiplication	Standard
1	1×1	1^2	<	2^1	2	2
8	$2 \times 2 \times 2$	2^3		3^2	3×3	9
		3^4		4^3		
		4^5		5^4		
		5^6		6^5		

Standard	Multiplication	x^y	< or >	y^x	Multiplication	Standard
1		1^{10}	<	10^1	10	10
1024		2^{10}		10^2		
		3^{10}		10^3		
		4^{10}		10^4		
		5^{10}		10^5		
60466,176		6^{10}		10^6		

Multiplication	Exponential	Standard
$2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$	2^{12}	4096
$(2 \times 2) \times (2 \times 2) \times (2 \times 2) \times (2 \times 2) \times (2 \times 2) \times (2 \times 2)$	4^6	
$(2 \times 2 \times 2) \times (2 \times 2 \times 2) \times (2 \times 2 \times 2) \times (2 \times 2 \times 2)$	8^4	4096
$(2 \times 2 \times 2 \times 2) \times (2 \times 2 \times 2 \times 2) \times (2 \times 2 \times 2 \times 2)$		
$(2 \times 2 \times 2 \times 2 \times 2 \times 2) \times (2 \times 2 \times 2 \times 2 \times 2 \times 2)$		
$3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$		531,441
$(3 \times 3) \times (3 \times 3) \times (3 \times 3) \times (3 \times 3) \times (3 \times 3) \times (3 \times 3)$		