Lesson 2.3 Powers of Ten

An **exponent** is a number that shows how many times a base number is to be used in multiplication. A **power of ten** is an exponent where the base number is always 10.

$10^1 = 1\underline{0} = 1\underline{0}$
$10^2 = 1\underline{0} \times 1\underline{0} = 1\underline{00}$
$10^3 = 1\underline{0} \times 1\underline{0} \times 1\underline{0} = 1,\underline{000}$
$10^4 = 1\underline{0} \times 1\underline{0} \times 1\underline{0} \times 1\underline{0} = 1\underline{0,000}$

Convert the values below to a power of ten.

	a	b	c
1.	100,000	1,000,000	10
	_____	_____	_____
2.	10,000,000	100	1,000,000,000
	_____	_____	_____

Convert these powers of ten to standard numbers.

	a	b	c
3.	10^7	10^5	10^3
	_____	_____	_____
4.	10^8	10^{12}	10^6
	_____	_____	_____