Fill this table

Number	Powers of 10	Number	Powers of 10	Number	Powers of 10
100000000	( )	200000000	( )	534200000	( )
100000	( )	200000	( )	895000	( )
1000	10^3	2000	2×10^3	7600	$\times 10^3$
100	10^2	200	2×10^2	935	$\times 10^2$
10	10^1	20	2×10^1	74	7.4×10^1
1	10^0	2	2×10^0	8	8×10^0
$\frac{1}{10}$	10^{-1}	$\frac{2}{10}$	2×10^{-1}	0.345	10^{-1}
$\frac{1}{100}$	10^{-2}	$\frac{2}{100}$	2×10^{-2}	0.0967	9.67×10^{-2}
$\frac{1}{1000}$	10^{-3}	$\frac{2}{1000}$	2×10^{-3}	0.00673	$\times 10^{-3}$
$\frac{1}{100000}$	( )	$\frac{2}{100000}$	( )	0.000027	( )

Writing large numbers in standard form

Remember the starting number must be between 1 and 10

It is **not** the number of zeros on the end

a. $300000 = 3 \times 10^5$ (5 jumps)

b. $7400 = 7.4 \times 10^3$ (3 jumps)

c. $800 = 8 \times 10^2$ (2 jumps)

d. $56300000 = 5.63 \times 10^7$ (7 jumps)

Writing small numbers in standard form

a. $0.00023 = 2.3 \times 10^{-4}$ (4 jumps)

b. $0.05 = 5 \times 10^{-2}$ (2 jumps)

c. $0.0000084 = 8.4 \times 10^{-6}$ (6 jumps)

d. $0.7 = 7 \times 10^{-1}$ (1 jump)

e. $0.00029 = 2.9 \times 10^{-4}$ (4 jumps)

f. $\frac{1}{1000} = 0.001 = 1 \times 10^{-3}$ (3 jumps)

Exercise A   Write using standard form

1. 20000000

2. 5700

3. 26600000000

4. 0.04

5. 0.00073

6. 0.0000000148

Exercise B   Write as ordinary numbers

1. 9×10^6

2. 5.06×10^4

3. 3.7×10^2

4. 1.0072×10^5

5. 2.631×10^6

6. 4.2×10^{-5}

Exercise C   Write using standard form

1. 350×10^2

2. 74×10^5

3. 531×10^{-4}

4. 0.832×10^{-4}

5. 0.0012×10^6

6. 532000×10^7

Exercise D   Put into order of size, smallest first

1. 7.8×10^{12}, 6.2×10^7, 9.05×10^{11}, 5.76×10^8, 7.42×10^9

2. 3.65×10^9, 4.83×10^8, 7.14×10^6, 3.7×10^9, 4.9×10^8

3. 5.3×10^{-3}, 2.7×10^{-2}, 3.45×10^{-3}, 8.6×10^{-4}, 4.35×10^{-4}

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