

### SCIENTIFIC NOTATION WORKSHEET

PART A: Convert the following full numbers into scientific notation. (ANSWERS IN BOLD)

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|---|---|
| 1. 65.7<br>( <b><math>6.57 \times 10^1</math></b> )   | 2. 0.00545<br>( <b><math>5.45 \times 10^{-3}</math></b> )   |
| 3. 1 100 000 000 km/h<br>(Speed of light)<br>( <b><math>1.1 \times 10^9</math> km/h</b> )     | 4. 40 100 000 m<br>(Circumference of the earth)<br>( <b><math>4.01 \times 10^7</math> m</b> )     |
| 5. 0.0001 m<br>(Width of an ant's eye)<br>( <b><math>1 \times 10^{-4}</math> m</b> )          | 6. 0.000 000 000 2 m<br>(Width of a hydrogen atom)<br>( <b><math>2 \times 10^{-10}</math> m</b> ) |
| 7. -22 450 000 m/s <sup>2</sup><br>( <b><math>-2.245 \times 10^7</math> m/s<sup>2</sup></b> ) | 8. - 0.000 000 000 000 775 290 12<br>( <b><math>-7.7529012 \times 10^{-13}</math></b> )           |

PART B: Convert the following from scientific notation to full numbers.

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| 1. $1.7 \times 10^1$<br>( <b>17</b> )  | 2. $6.32 \times 10^{23}$<br>( <b>632 000 000 000 000 000 000</b> )   |
| 3. $1 \times 10^{12}$<br>(The number 'a trillion')<br>( <b>1 000 000 000 000</b> ) | 4. $9.47 \times 10^8$<br>(The number of seconds you've been<br>alive when you turn 30)<br>( <b>947 000 000</b> ) |
| 5. $1 \times 10^{-4}$ m<br>(Thickness of a piece of paper)<br>( <b>0.000 1 m</b> ) | 6. $5 \times 10^{-8}$ m<br>(Width of an influenza virus)<br>( <b>0.000 000 05 m</b> )                            |
| 7. $-3.4 \times 10^3$<br>( <b>-3400</b> )  | 8. $-6.67 \times 10^{-16}$<br>( <b>-0.000 000 000 000 000 667</b> )  |
| 9. $3.0 \times 10^8$ m/s <sup>2</sup><br>( <b>300 000 000 m/s</b> )                | 10. $-1.99 \times 10^0$ h<br>( <b>-1.99 h</b> )  |