

## 5.3 Practice - Scientific Notation

Write each number in scientific notation

- |          |             |
|----------|-------------|
| 1) 885   | 2) 0.000744 |
| 3) 0.081 | 4) 1.09     |
| 5) 0.039 | 6) 15000    |

Write each number in standard notation

- |                       |                        |
|-----------------------|------------------------|
| 7) $8.7 \times 10^5$  | 8) $2.56 \times 10^2$  |
| 9) $9 \times 10^{-4}$ | 10) $5 \times 10^4$    |
| 11) $2 \times 10^0$   | 12) $6 \times 10^{-5}$ |

Simplify. Write each answer in scientific notation.

- |   |   |
|---|---|
| 13) $(7 \times 10^{-1})(2 \times 10^{-3})$            | 14) $(2 \times 10^{-6})(8.8 \times 10^{-5})$          |
| 15) $(5.26 \times 10^{-5})(3.16 \times 10^{-2})$      | 16) $(5.1 \times 10^6)(9.84 \times 10^{-1})$          |
| 17) $(2.6 \times 10^{-2})(6 \times 10^{-2})$          | 18) $\frac{7.4 \times 10^4}{1.7 \times 10^{-4}}$      |
| 19) $\frac{4.9 \times 10^1}{2.7 \times 10^{-3}}$      | 20) $\frac{7.2 \times 10^{-1}}{7.32 \times 10^{-1}}$  |
| 21) $\frac{5.33 \times 10^{-6}}{9.62 \times 10^{-2}}$ | 22) $\frac{3.2 \times 10^{-3}}{5.02 \times 10^0}$     |
| 23) $(5.5 \times 10^{-5})^2$                          | 24) $(9.6 \times 10^3)^{-4}$                          |
| 25) $(7.8 \times 10^{-2})^5$                          | 26) $(5.4 \times 10^6)^{-3}$                          |
| 27) $(8.03 \times 10^4)^{-4}$                         | 28) $(6.88 \times 10^{-4})(4.23 \times 10^1)$         |
| 29) $\frac{6.1 \times 10^{-6}}{5.1 \times 10^{-4}}$   | 30) $\frac{8.4 \times 10^5}{7 \times 10^{-2}}$        |
| 31) $(3.6 \times 10^0)(6.1 \times 10^{-3})$           | 32) $(3.15 \times 10^3)(8 \times 10^{-1})$            |
| 33) $(1.8 \times 10^{-5})^{-3}$                       | 34) $\frac{9.58 \times 10^{-2}}{1.14 \times 10^{-3}}$ |
| 35) $\frac{9 \times 10^4}{7.83 \times 10^{-2}}$       | 36) $(8.3 \times 10^1)^5$                             |
| 37) $\frac{3.22 \times 10^{-3}}{7 \times 10^{-6}}$    | 38) $\frac{5 \times 10^6}{6.69 \times 10^2}$          |
| 39) $\frac{2.4 \times 10^{-6}}{6.5 \times 10^0}$      | 40) $(9 \times 10^{-2})^{-3}$                         |
| 41) $\frac{6 \times 10^3}{5.8 \times 10^{-3}}$        | 42) $(2 \times 10^4)(6 \times 10^1)$                  |



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## Answers to Scientific Notation

- |                            |                             |                            |
|----------------------------|-----------------------------|----------------------------|
| 1) $8.85 \times 10^2$      | 16) $5.018 \times 10^6$     | 31) $2.196 \times 10^{-2}$ |
| 2) $7.44 \times 10^{-4}$   | 17) $1.56 \times 10^{-3}$   | 32) $2.52 \times 10^3$     |
| 3) $8.1 \times 10^{-2}$    | 18) $4.353 \times 10^8$     | 33) $1.715 \times 10^{14}$ |
| 4) $1.09 \times 10^0$      | 19) $1.815 \times 10^4$     | 34) $8.404 \times 10^1$    |
| 5) $3.9 \times 10^{-2}$    | 20) $9.836 \times 10^{-1}$  | 35) $1.149 \times 10^6$    |
| 6) $1.5 \times 10^4$       | 21) $5.541 \times 10^{-5}$  | 36) $3.939 \times 10^9$    |
| 7) 870000                  | 22) $6.375 \times 10^{-4}$  | 37) $4.6 \times 10^2$      |
| 8) 256                     | 23) $3.025 \times 10^{-9}$  | 38) $7.474 \times 10^3$    |
| 9) 0.0009                  | 24) $1.177 \times 10^{-16}$ | 39) $3.692 \times 10^{-7}$ |
| 10) 50000                  | 25) $2.887 \times 10^{-6}$  | 40) $1.372 \times 10^3$    |
| 11) 2                      | 26) $6.351 \times 10^{-21}$ | 41) $1.034 \times 10^6$    |
| 12) 0.00006                | 27) $2.405 \times 10^{-20}$ | 42) $1.2 \times 10^6$      |
| 13) $1.4 \times 10^{-3}$   | 28) $2.91 \times 10^{-2}$   |                            |
| 14) $1.76 \times 10^{-10}$ | 29) $1.196 \times 10^{-2}$  |                            |
| 15) $1.662 \times 10^{-6}$ | 30) $1.2 \times 10^7$       |                            |



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