

Name \_\_\_\_\_

## Standard to Scientific Answer Key

- |                          |                           |
|--------------------------|---------------------------|
| 1. $8.4 \times 10^4$     | 9. $4.78 \times 10^{-4}$  |
| 2. $5.73 \times 10^6$    | 10. $3.16 \times 10^{-5}$ |
| 3. $9.12 \times 10^7$    | 11. $8.9 \times 10^{-7}$  |
| 4. $4.08 \times 10^8$    | 12. $4.52 \times 10^{-9}$ |
| 5. $7.045 \times 10^9$   | 13. $1.56 \times 10^5$    |
| 6. $6 \times 10^{-1}$    | 14. $5.69 \times 10^{-5}$ |
| 7. $8.1 \times 10^{-2}$  | 15. $3.02 \times 10^{12}$ |
| 8. $9.25 \times 10^{-3}$ |                           |

## Teacher's Guide

- Quick implementation tips
  - o Model two examples before students begin, one large whole number and one small decimal.
  - o Remind students that the coefficient must always be at least 1 but less than 10.
  - o Encourage students to count decimal places carefully before writing the exponent.
- Differentiation strategies
  - o Allow students who need support to highlight the original decimal point before moving it.
  - o Challenge advanced students to convert their scientific notation answers back to standard form for self-checking.
  - o Pair students so they can compare coefficients and exponents before submitting their work.
- Engagement ideas
  - o Have students explain how they determined whether the exponent should be positive or negative.
  - o Turn the activity into a partner challenge where students earn a point for each correctly checked answer.