

Coefficient Quest Answer Key

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| 1. Correct | 9. Correct |
| 2. Incorrect. 1.24×10^7 | 10. Incorrect. 1.89×10^{-1} |
| 3. Incorrect. 8×10^{-4} | 11. Incorrect. 9×10^{-7} |
| 4. Correct | 12. Correct |
| 5. Incorrect. 1.5×10^3 | 13. Incorrect. 2.31×10^0 |
| 6. Correct | 14. Correct |
| 7. Incorrect. 2.5×10^7 | 15. Incorrect. 4×10^9 |
| 8. Incorrect. 1×10^{-3} | |

Teacher's Guide

- Quick implementation tips
 - o Review that the coefficient in scientific notation must be at least 1 and less than 10.
 - o Encourage students to check the coefficient first before looking at the exponent.
 - o Have students verify corrected answers by converting them to standard form.
- Differentiation strategies
 - o Begin with only the first eight problems for students who need extra support.
 - o Allow students to use place value charts or decimal movement arrows while rewriting incorrect expressions.
 - o Challenge advanced students to explain why the exponent changes when the coefficient is adjusted.
- Engagement ideas
 - o Turn the activity into a "notation inspector" game where students identify and fix incorrect expressions as quickly as possible.
 - o Have partners compare corrections and justify any differences before checking the answer key.
- Extension activities
 - o Ask students to write five incorrect scientific notation examples for a classmate to correct.
 - o Have students convert each corrected expression to standard form.