

Decimal Journey Answer Key

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| 1. Decimal Moves: 4 left
Exponent: 4
Scientific Notation: 7.2×10^4 | 5. Decimal Moves: 8 left
Exponent: 8
Scientific Notation: 6.35×10^8 |
| 2. Decimal Moves: 6 left
Exponent: 6
Scientific Notation: 8.19×10^6 | 6. Decimal Moves: 7 right
Exponent: -7
Scientific Notation: 7.2×10^{-7} |
| 3. Decimal Moves: 3 right
Exponent: -3
Scientific Notation: 4.6×10^{-3} | 7. Decimal Moves: 4 left
Exponent: 4
Scientific Notation: 5.48×10^4 |
| 4. Decimal Moves: 5 right
Exponent: -5
Scientific Notation: 9.1×10^{-5} | 8. Decimal Moves: 4 right
Exponent: -4
Scientific Notation: 3.8×10^{-4} |

Teacher's Guide

- Quick implementation tips
 - Demonstrate one example by marking the starting and ending positions of the decimal point.
 - Remind students that moving the decimal left gives a positive exponent, while moving it right gives a negative exponent.
 - Encourage students to check that the coefficient is at least 1 and less than 10.
- Differentiation strategies
 - Provide a printed place value chart for students who benefit from visual support.
 - Let students use colored pencils to trace the decimal movement.
 - Challenge advanced students to complete each conversion mentally before recording the decimal movement.
- Engagement ideas
 - Have students act out the decimal movement by stepping left or right across a classroom place value line.
 - Ask partners to explain why each exponent is positive or negative before comparing answers.