

Digit Stories Answer Key

1. 5,800 / Sample explanation: The digits shifted two places to the left because multiplying by 10^2 means multiplying by 100.
2. 3,600 / Sample explanation: The digits shifted three places to the left. The value became 1,000 times greater.
3. 72 / Sample explanation: The digits shifted two places to the right because dividing by 10^2 means dividing by 100.
4. 4.5 / Sample explanation: The digits shifted one place to the left. Multiplying by 10 makes the number 10 times greater.
5. 84 / Sample explanation: The digits shifted one place to the right. Dividing by 10 makes the number 10 times smaller.
6. 0.00908 / Sample explanation: The digits shifted three places to the right. Dividing by 1,000 makes the value much smaller.
7. 1,250,000 / Sample explanation: The digits shifted four places to the left because multiplying by 10^4 means multiplying by 10,000.
8. 700 / Sample explanation: The digits shifted five places to the left. Multiplying by 100,000 makes the value 100,000 times greater.

Teacher's Guide

- Model one example and think aloud using place value vocabulary such as ones, tenths, hundreds, and thousands.
- Encourage students to explain why the answer is reasonable instead of only describing the decimal movement.
- Provide a place value chart for students who benefit from visual support.
- Have students compare explanations with a partner and identify strong mathematical language.
- Invite volunteers to share different correct explanations for the same problem.
- Extend the lesson by having students write their own multiplication or division problem with a power of 10 and explain the place value pattern in complete sentences.