

Name _____

Digit Depth

Read each situation carefully. Use what you know about place value, powers of ten, decimals, and number relationships to solve each problem.

1. A city recorded 4,582,731 visitors during a festival season. In this number, how many times greater is the value of the digit 8 than the value of the digit 2?

- A. 10 times B. 100 times C. 1,000 times D. 10,000 times

2. A research station measured a distance of 63.482 kilometers. What is the value of the digit 8 in this measurement?

- A. 8 B. 0.8 C. 0.08 D. 0.008

3. A computer stores the number 7,304,615. If the digit 3 were moved two places to the right, how would the value of the 3 change?

- A. It would become 10 times as great.
B. It would become 100 times as great.
C. It would become one-tenth as great.
D. It would become one-hundredth as great.



4. A spacecraft traveled 2,507,840 miles. Another spacecraft traveled a distance in which the digit 5 had exactly one-tenth the value of the 5 in 2,507,840. What value would the digit 5 have in the second distance?

- A. 500,000 B. 50,000 C. 5,000 D. 500

5. A scientist writes the number 804,062.315 on a data sheet. Which statement is true?

- A. The 6 has a value of 6,000. B. The 3 has a value of 0.03.
C. The 1 has a value of 0.01. D. The 5 has a value of 0.005.

6. A game score is greater than 460,000 but less than 470,000. The thousands digit is 8, the hundreds digit is 3, the tens digit is 5, and the ones digit is 2. What is the score?

- A. 468,352 B. 468,532 C. 463,852 D. 468,325

7. A digital scale displays 18.3057 grams. Which expression shows the value of the digit 5?

- A. $5 \times 1/10$ B. $5 \times 1/100$ C. $5 \times 1/1,000$ D. $5 \times 1/10,000$