



# Place Value & Powers of 10

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Grade: Grade 5

## Part A: Multiple Choice

Circle the best answer for each question.

1. A number has a 6 in the ten-thousands place. Its value from that digit alone is  $6 \times 10$  to what power?

- A)  $10^3$
- B)  $10^4$
- C)  $10^5$
- D)  $10^6$

2. Which shows 50,300 written as two terms with powers of 10?

- A)  $(5 \times 10^4) + (3 \times 10^3)$
- B)  $(5 \times 10^4) + (3 \times 10^2)$
- C)  $(5 \times 10^3) + (3 \times 10^2)$
- D)  $(5 \times 10^5) + (3 \times 10^2)$

3.  $0.25 \times 10^5$  equals which value?

- A) 250
- B) 2,500
- C) 25,000
- D) 250,000

4. Sam says  $8 \times 10^4$  is the same as  $80 \times 10^3$ . Is he correct, and why?

- A) No —  $80 \times 10^3 = 800,000$
- B) Yes — both equal 80,000
- C) No —  $8 \times 10^4 = 8,000$
- D) Yes — both equal 800,000

## Part B: Fill in the Blank

Write the correct answer on each line.

1. Write 2,400,000 as 24 times a power of 10:  $24 \times 10$  to the power of \_\_\_\_\_ .
2. The digit 8 in 830,000 has a value that is \_\_\_\_\_ times the value of the 8 in 8,300.
3.  $(9 \times 10^5) + (4 \times 10^2) + (6 \times 10^0) =$  \_\_\_\_\_ .
4.  $1.35 \times 10^4 =$  \_\_\_\_\_ .
5.  $6,090,000 \div 10^3 =$  \_\_\_\_\_ .

**Part A: Multiple Choice**

Circle the best answer for each question.

1. A number has a 6 in the ten-thousands place. Its value from that digit alone is  $6 \times 10$  to what power?

- A)  $10^3$
- B)  $10^4$
- C)  $10^5$
- D)  $10^6$

2. Which shows 50,300 written as two terms with powers of 10?

- A)  $(5 \times 10^4) + (3 \times 10^3)$
- B)  $(5 \times 10^4) + (3 \times 10^2)$
- C)  $(5 \times 10^3) + (3 \times 10^2)$
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- A) 250
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- A) No —  $80 \times 10^3 = 800,000$
- B) Yes — both equal 80,000
- C) No —  $8 \times 10^4 = 8,000$
- D) Yes — both equal 800,000

**Part B: Fill in the Blank**

Write the correct answer on each line.

1. Write 2,400,000 as 24 times a power of 10:  $24 \times 10$  to the power of 5 .
2. The digit 8 in 830,000 has a value that is 100 times the value of the 8 in 8,300.
3.  $(9 \times 10^5) + (4 \times 10^2) + (6 \times 10^0) =$  900,406 .
4.  $1.35 \times 10^4 =$  13,500 .
5.  $6,090,000 \div 10^3 =$  6,090 .