

Physics

Scientific Notation, Form: 

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

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

Period: \_\_\_\_\_

Section 1. Multiple Choice

*Choose the best answer to each question.*

1. Which of the following numbers is in proper scientific notation?

- (a)  $82 \times 10^7$
- (b)  $8.2 \times 10^8$
- (c) 8.2E8
- (d)  $0.82 \times 10^9$

2. Which of the following is 42579624489 in scientific notation?

- (a)  $4.2579624489 \times 10^{10}$
- (b)  $4.258 \times 10^{10}$
- (c)  $42.580 \times 10^9$
- (d)  $0.425 \times 10^{-11}$

3. What is  $(2 \times 10^3)(6 \times 10^{-7})$  in proper scientific notation?

- (a)  $1.2 \times 10^{-3}$
- (b)  $12 \times 10^{-4}$
- (c)  $8 \times 10^{21}$
- (d)  $4 \times 10^{-10}$

4. What is  $\frac{9 \times 10^3}{-3 \times 10^8}$  in proper scientific notation?

- (a)  $3 \times 10^5$
- (b)  $-3 \times 10^5$
- (c)  $3 \times 10^{-5}$
- (d)  $-3 \times 10^{-5}$

5. Simplify the following expression. Express your answer in proper scientific notation.

$$\frac{(6 \times 10^{-37})^2}{(2 \times 10^{10})^2}$$

- (a)  $3 \times 10^{-47}$
- (b)  $1.8 \times 10^{-83}$
- (c)  $9 \times 10^{-94}$
- (d)  $8.88 \times 10^{23}$

6. Simplify the following expression. Express your answer in proper scientific notation.

$$\frac{(4.357 \times 10^{17})^3}{(5.452 \times 10^{-7}) \times (2.997 \times 10^8)}$$

- (a)  $2.667 \times 10^{15}$
  - (b)  $5.062 \times 10^{50}$
  - (c)  $4.547 \times 10^{67}$
  - (d) None of the above
7. The distance from El Paso to Dallas is 917 kilometers. What is this distance in meters?
- (a)  $9.17 \times 10^5$  m
  - (b)  $917 \times 10^3$  m
  - (c)  $9.17 \times 10^3$  m
  - (d)  $7.19 \times 10^{-5}$  m

## Section 2. Multiple Correct Multiple Choice

For the following question, **choose two** correct answers. No credit will be given for incorrect or partially correct answers. Mark **both** answers clearly.

8. Which of the following TWO numbers are the equal? (CHOOSE TWO)
- (a) 0.000005678
  - (b) 5678000000
  - (c) 2000
  - (d)  $5.678 \times 10^{-6}$
  - (e)  $5.678 \times 10^6$
  - (f)  $2 \times 10^{-3}$

## Section 3. Ranking

In the following question, you must put the numbers in order, from least to greatest.

9. Order:
- (a)  $8.678 \times 10^6$
  - (b)  $5.678 \times 10^{-6}$
  - (c)  $3.435 \times 10^{18}$

# Answer Key for Exam A

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