

## Day 3~ Scientific Notation HW

Student \_\_\_\_\_

Date \_\_\_\_\_

1. What is the value of the expression  $(3^3)(2^4)(3^{-4})(2^{-3})$ ?
  - A.  $-6$
  - B.  $-3$
  - C.  $\frac{1}{6}$
  - D.  $\frac{2}{3}$
2. The volume of a cube is  $125 \text{ cm}^3$ . What is the length of each side of the cube?
  - A. 5 cm
  - B. 11.18 cm
  - C. 25 cm
  - D. 31.25 cm
3. How is  $3.25 \times 10^6$  written in standard form?
  - A. 3,250,000
  - B. 32,500,000
  - C. 325,000,000
4. The diameter of a grain of sand is 0.06534 millimeter. Which value is the best estimate of this diameter?
  - A.  $6 \times 10^{-3}$  millimeter
  - B.  $7 \times 10^{-3}$  millimeter
  - C.  $6 \times 10^{-2}$  millimeter
  - D.  $7 \times 10^{-2}$  millimeter

5. The masses of three planets are shown in the table below.

Planet	Mass (kg)
Venus	$4.87 \times 10^{24}$
Earth	$5.98 \times 10^{24}$
Mars	$6.42 \times 10^{23}$

Which shows the planets ordered from greatest to least mass?

- A. Earth, Venus, Mars
  - B. Venus, Earth, Mars
  - C. Mars, Earth, Venus
  - D. Mars, Venus, Earth
6. Which is equivalent to  $(2.0 \times 10^3)(2.0 \times 10^4)$ ?
    - A.  $2.0 \times 10^7$
    - B.  $4.0 \times 10^7$
    - C.  $2.0 \times 10^{12}$
    - D.  $4.0 \times 10^{12}$
  7. Which value is equivalent to  $2.4 \times 10^4 - 1.7 \times 10^2$ ?
    - A. 238,300
    - B. 23,830
    - C. 2230
    - D. 70

8. What is the value of  $\frac{3.0 \times 10^5}{1.5 \times 10^{-2}}$ ?

- A. 2,000
- B. 4,500
- C. 15,000,000
- D. 20,000,000

9. Which of these equations does NOT have any solutions?

- A.  $10 - 3x - 1 = 7 + 3x + 2$
- B.  $12 - 7x - 10 = x - 8x + 2$
- C.  $13 - 4x + 2 = 3x - 7x + 2$
- D.  $15 - 2x - 2 = 10x + 3x + 2$

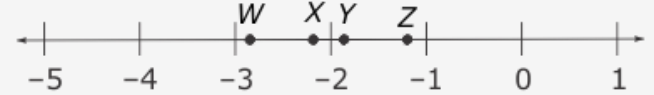
10. What is the solution to  $5(x + 1) - 8 = x - 4(2x - 1)$ ?

- A. 1
- B.  $\frac{7}{12}$
- C.  $\frac{1}{2}$
- D. -1

11. Which of these is a rational number?

- A.  $\sqrt{254}$
- B.  $\frac{\sqrt{125}}{5}$
- C.  $-\frac{\sqrt{4}}{2}$
- D.  $-\sqrt{3}$

12. Which letter is located at approximately  $-\sqrt{5}$ ?



- A. W
- B. X
- C. Y
- D. Z