

Quiz on Scientific Notation

1. A human red blood cell is about 0.000008 meter in diameter. Which of the following represents this number in scientific notation?
- F** 0.8×10^{-6}
G 8.0×10^{-6}
H 0.8×10^6
J 8.0×10^6
2. The population of Asia is about 3.4×10^9 . The population of Africa is about 7×10^8 . About how many more people live in Asia than live in Africa?
- A. 27,000,000
B. 270,000,000
C. 360,000,000
D. 2,700,000,000
3. The diameter of a barium atom is 0.0000004346 millimeters. In scientific notation it is
- A. 43.46×10^{-8} mm
B. 4.346×10^7 mm
C. 4.346×10^{-7} mm
D. 4346.0×10^{-7} mm
4. Evaluate $(4.67 \times 10^7)(3.24 \times 10^3)$.
- A. 1.51308×10^{11}
B. 1.51308×10^{21}
C. 7.91×10^{10}
D. 15.1308×10^{10}
5. 648,392 in scientific notation is—
- A. 648.392×10^3
B. 6.48392×10^5
C. 6.48392×10^{-5}
D. $.648392 \times 10^{-6}$
6. Which expression represents 238.42 in scientific notation?
- A** 2.3842×10^5
B 2.3842×10^4
C 2.3842×10^3
D 2.3842×10^2
7. Which expression represents 0.000362 in scientific notation?
- A** 3.62×10^{-6}
B 3.62×10^{-5}
C 3.62×10^{-4}
D 3.62×10^{-3}
8. Which expression represents 0.783 in scientific notation?
- A** 7.83×10^{-2}
B 7.83×10^{-1}
C 7.83×10^1
D 7.83×10^2
10. Which expression represents 348,000 in scientific notation?
- A** 3.48×10^4
B 3.48×10^5
C 3.48×10^6
D 3.48×10^7
11. Which expression represents the product of 0.000008 and 3,500,000?
- A** 11.5×10^3
B 2.8×10^1
C 2.8×10^4
D 28×10^4
12. Which expression represents the product of (4.63×10^8) and 500?
- A** 2.315×10^4
B 2.315×10^6
C 2.315×10^{11}
D 2.315×10^{16}

13.

3.81×10^{-4} may be written as —

F 0.0000381

G 0.000381

H 3,810

J 38,100

14.

Which is equivalent to the following expression

$$(2.3 \times 10^4) - (6.5 \times 10^3)$$

F 10^{-42}

G 165

H 1,650

J 16,500

15.

Which is equivalent to $\frac{x^5 y^2 z^8}{(xy)^{-3}}$?

A $\frac{x^2 z^8}{y}$

B $x^{12} y^8 z^8$

C $\frac{-x^4 y z^8}{3}$

D $x^8 y^5 z^8$

16.

The continent of North America has an area of approximately 9.4×10^6 square miles. The area of Asia is approximately 1.74×10^7 square miles. How many square miles larger is Asia than North America?

F 7.6×10^1 G 7.6×10^{-1} H 8.0×10^6 J 8.0×10^1

17.

The diameter of a barium atom is 0.0000004346 millimeters. In scientific notation it is —

A 43.46×10^{-8} mm

B 4.346×10^7 mm

C 4.346×10^{-7} mm

D 4346.0×10^{-7} mm

18. What is 253,000,000 in scientific notation?

A 25.3×10^7

B 2.53×10^8

C 253×10^6

D 2.53×10^9

19. Simplify: $\frac{9.0 \times 10^7}{3.0 \times 10^{14}}$

A 3.0×10^{-7}

B 3.0×10^{-2}

C 3.0×10^2

D 3.0×10^7

20. Simplify: $\frac{1.65 \times 10^{25}}{3.3 \times 10^5}$

A 5.0×10^4

B 5.0×10^5

C 5.0×10^{19}

D 5.0×10^{20}

Bonus:

1.

value of the expression $\frac{x^y + z}{z}$ if $x = 4$, $y = 2$, and $z = 2$?

B 9

C 10

D 16

