

POWERS: Scientific Notation

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NAME: _____

1. 010911a

What is the value of n if the number 0.0000082 is written in the form 8.2×10^n ?

- [A] 6 [B] -6 [C] -5 [D] 5

2. 080801a

If $6.54 \times 10^n = 65,400$, what is the value of n ?

- [A] 5 [B] -3 [C] 4 [D] -5

3. 060808a

Expressed in scientific notation, the number 4,600,000,000 is

- [A] 4.6×10^{-8} [B] 4.6×10^{-9}
[C] 4.6×10^9 [D] 0.46×10^{10}

4. 080715a

The video of the movie *Star Wars* earned \$193,500,000 in rental fees during its first year. Expressed in scientific notation, the number of dollars earned is

- [A] 1.935×10^8 [B] 193.5×10^6
[C] 1935×10^8 [D] 1.935×10^6

5. 060720a

According to the 2000 census, the population of New York State was approximately 18,900,000. How is this number expressed in scientific notation?

- [A] 1.89×10^7 [B] 189×10^5
[C] 18.9×10^6 [D] 1890×10^4

6. 080607a

A micron is a unit used to measure specimens viewed with a microscope. One micron is equivalent to 0.00003937 inch. How is this number expressed in scientific notation?

- [A] 3937×10^8 [B] 3937×10^{-8}
[C] 3.937×10^5 [D] 3.937×10^{-5}

7. 010609a

The size of a certain type of molecule is 0.00009078 inch. If this number is expressed as 9.078×10^n , what is the value of n ?

- [A] 5 [B] 8 [C] -5 [D] -8

8. 080511a

The expression 0.62×10^3 is equivalent to

- [A] 6.2×10^4 [B] 62,000
[C] 6.2×10^2 [D] 0.062

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9. 060504a

The mass of an orchid seed is approximately 0.0000035 gram. Written in scientific notation, that mass is equivalent to 3.5×10^n . What is the value of n ?

- [A] -7 [B] -8 [C] -6 [D] -5

10. 080424a

The number 1.56×10^{-2} is equivalent to

- [A] 0.0156 [B] 156
[C] 0.156 [D] 0.00156

11. 060301a

The number 8.375×10^{-3} is equivalent to

- [A] 0.008375 [B] 0.08375
[C] 8,375 [D] 0.0008375

12. 080210a

If 0.0347 is written by a scientist in the form 3.47×10^n , the value of n is

- [A] -2 [B] 2 [C] 3 [D] -3

13. 010206a

The approximate number of seconds in a year is 32,000,000. When this number is written in scientific notation, the numerical value of the exponent is

- [A] 7 [B] 8 [C] -7 [D] 6

14. 010111a

The distance from Earth to the Sun is approximately 93 million miles. A scientist would write that number as

- [A] 93×10^7 [B] 9.3×10^6
[C] 93×10^{10} [D] 9.3×10^7

15. 080004a

Expressed in decimal notation, 4.726×10^{-3} is

- [A] 4,726 [B] 0.04726
[C] 472.6 [D] 0.004726

16. 089904a

Which expression is equivalent to 6.02×10^{23} ?

- [A] 60.2×10^{21} [B] 6020×10^{21}
[C] 0.602×10^{21} [D] 602×10^{21}

[1] B

[2] C

[3] C

[4] A

[5] A

[6] D

[7] C

[8] C

[9] C

[10] A

[11] A

[12] A

[13] A

[14] D

[15] D

[16] D