

8.EE.A.3: Scientific Notation 1a

- 1 Expressed in decimal notation, 4.726×10^{-3} is
 - 1) 0.004726
 - 2) 0.04726
 - 3) 472.6
 - 4) 4,726

- 2 According to the 2000 census, the population of New York State was approximately 18,900,000. How is this number expressed in scientific notation?
 - 1) 1890×10^4
 - 2) 18.9×10^6
 - 3) 1.89×10^7
 - 4) 189×10^5

- 3 The distance from Earth to the Sun is approximately 93 million miles. A scientist would write that number as
 - 1) 9.3×10^6
 - 2) 9.3×10^7
 - 3) 93×10^7
 - 4) 93×10^{10}

- 4 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
 - 1) 1935×10^8
 - 2) 193.5×10^6
 - 3) 1.935×10^6
 - 4) 1.935×10^8

- 5 Expressed in scientific notation, the number 4,600,000,000 is
 - 1) 4.6×10^{-8}
 - 2) 4.6×10^{-9}
 - 3) 4.6×10^9
 - 4) 0.46×10^{10}

- 6 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?
 - 1) 3.937×10^{-5}
 - 2) 3.937×10^5
 - 3) 3937×10^{-8}
 - 4) 3937×10^8

- 7 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
 - 1) -7
 - 2) 6
 - 3) 7
 - 4) 8

- 8 If $6.54 \times 10^n = 65,400$, what is the value of n ?
 - 1) 5
 - 2) -5
 - 3) -3
 - 4) 4

- 9 If 0.0154 is expressed in the form 1.54×10^n , n is equal to
- 1) -2
 - 2) 2
 - 3) 3
 - 4) -3
- 10 If 0.0347 is written by a scientist in the form 3.47×10^n , the value of n is
- 1) -2
 - 2) 2
 - 3) 3
 - 4) -3
- 11 What is the value of n if the number 0.0000082 is written in the form 8.2×10^n ?
- 1) -6
 - 2) -5
 - 3) 5
 - 4) 6
- 12 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 ?
- 1) -8
 - 2) -7
 - 3) -6
 - 4) -5
- 13 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 ?
- 1) -5
 - 2) 5
 - 3) -8
 - 4) 8
- 14 Which expression is equivalent to 6.02×10^{23} ?
- 1) 0.602×10^{21}
 - 2) 60.2×10^{21}
 - 3) 602×10^{21}
 - 4) 6020×10^{21}
- 15 The expression 0.62×10^3 is equivalent to
- 1) 0.062
 - 2) 62,000
 - 3) 6.2×10^4
 - 4) 6.2×10^2
- 16 The number 8.375×10^{-3} is equivalent to
- 1) 0.0008375
 - 2) 0.008375
 - 3) 0.08375
 - 4) 8,375
- 17 The number 1.56×10^{-2} is equivalent to
- 1) 156
 - 2) 0.156
 - 3) 0.0156
 - 4) 0.00156

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| 1 | ANS: 1 | REF: 080004a |
| 2 | ANS: 3 | REF: 060720a |
| 3 | ANS: 2 | REF: 010111a |
| 4 | ANS: 4 | REF: 080715a |
| 5 | ANS: 3 | REF: 060808a |
| 6 | ANS: 1 | REF: 080607a |
| 7 | ANS: 3 | REF: 010206a |
| 8 | ANS: 4 | REF: 080801a |
| 9 | ANS: 1 | REF: spring9808a |
| 10 | ANS: 1 | REF: 080210a |
| 11 | ANS: 1 | REF: 010911a |
| 12 | ANS: 3 | REF: 060504a |
| 13 | ANS: 1 | REF: 010609a |
| 14 | ANS: 3 | REF: 089904a |
| 15 | ANS: 4 | REF: 080511a |
| 16 | ANS: 2 | REF: 060301a |
| 17 | ANS: 3 | REF: 080424a |