8.EE.A.3: Scientific Notation

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

8.EE.A.3: Scientific Notation
Answer Section

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