

Scientific Notation and Unit Prefixes – Answer Key

Convert the following to scientific notation:

- 1) 45,700 **4.57×10^4**
- 2) 0.009 **9×10^{-3}**
- 3) 23 **2.3×10^1**
- 4) 0.9 **9×10^{-1}**
- 5) 24,212,000 **2.4212×10^7**
- 6) 0.000665 **6.65×10^{-4}**
- 7) 21.9 **2.19×10^1**
- 8) 0.00332 **3.32×10^{-3}**
- 9) 321 **3.21×10^2**
- 10) 0.119 **1.19×10^{-1}**
- 11) 1492 **1.492×10^3**
- 12) 0.2713 **2.713×10^{-1}**
- 13) 314159 **3.14159×10^5**
- 14) 6022 **6.022×10^3**
- 15) 0.12011 **1.2011×10^{-1}**

Convert the following numbers in scientific notation to expanded form:

- 16) 3.825×10^3 **3,825**
- 17) 6.3×10^4 **63,000**
- 18) 2.3×10^{-2} **0.023**
- 19) 4.44×10^{-6} **0.00000444**

20) 7.121×10^9 **7,121,000,000**

21) 1.2×10^{-1} **0.12**

22) 1.8×10^2 **180**

23) 8.1×10^{-4} **0.00081**

24) 6.7×10^5 **670,000**

25) 3.4×10^7 **34,000,000**

Make the following conversions:

1) 3.4 liters to milliliters
3400 mL

6) 45 meters to centimeters
450 cm

2) 876 millimeters to meters
0.876 m

7) 11.7 grams to kilograms
0.0117 kg

3) 78,999 milligrams to grams
78.999 g

8) 0.0009 kiloliters to liters
0.9 L

4) 0.9 centigrams to grams
0.09 g

9) 44 centimeters to meters
0.44 m

5) 112 meters to millimeters
112,000 mm

10) 277 kilograms to grams
277,000 g
