Scientific Notation and Unit Prefixes

Make the following conversions:

1) 3.4 liters to milliliters

2) 876 millimeters to meters

3) 78,999 milligrams to grams

4) 0.9 centigrams to grams

5) 112 meters to millimeters

6) 45 meters to centimeters

7) 11.7 grams to kilograms

8) 0.0009 kiloliters to liters

9) 44 centimeters to meters

10) 277 kilograms to grams

_____

Convert the following to scientific notation:

11) 45,700 _____

12) 0.009 _____

13) 23 _____

14) 0.9 _____

15) 24,212,000 _____

16) 0.000665 _____

Convert the following to scientific notation:

17) 21.9 _____

18) 0.00332 _____

19) 321 _____

20) 0.119 _____

21) 1492 _____

22) 0.2713 _____

23) 314159 _____

24) 6022 _____

25) 0.12011 _____

Convert the following numbers in scientific notation to expanded form:

26) 3.825×10^3 _____

27) 6.3×10^4 _____

28) 2.3×10^{-2} _____

29) 4.44×10^{-6} _____

30) 7.121×10^9 _____

31) 1.2×10^{-1} _____

32) 1.8×10^2 _____

33) 8.1×10^{-4} _____

34) 6.7×10^5 _____

35) 3.4×10^7 _____

Scientific Notation and Unit Prefixes – Answer Key

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

Convert the following to scientific notation:

11) 45,700 **4.57×10^{4}**

12) 0.009 **9×10^{-3}**

13) 23 **2.3×10^{1}**

14) 0.9 **9×10^{-1}**

15) 24,212,000 **2.4212×10^{7}**

16) 0.000665 **6.65×10^{-4}**

Convert the following to scientific notation:

17) 21.9 **2.19×10^1**

18) 0.00332 **3.32×10^{-3}**

19) 321 **3.21×10^2**

20) 0.119 **1.19×10^{-1}**

21) 1492 **1.492×10^3**

22) 0.2713 **2.713×10^{-1}**

23) 314159 **3.14159×10^5**

24) 6022 **6.022×10^3**

25) 0.12011 **1.2011×10^{-1}**

Convert the following numbers in scientific notation to expanded form:

26) 3.825×10^3 **3,825**

27) 6.3×10^4 **63,000**

28) 2.3×10^{-2} **0.023**

29) 4.44×10^{-6} **0.00000444**

30) 7.121×10^9 **7,121,000,000**

31) 1.2×10^{-1} **0.12**

32) 1.8×10^2 **180**

33) 8.1×10^{-4} **0.00081**

34) 6.7×10^5 **670,000**

35) 3.4×10^7 **34,000,000**