CHM 110 – Practice Problems

Solve the problem. Show your dimensional analysis setup in the space given below. Draw a box around your final answer. See the other side of the page for your second problem.

1) 0.00157 km to mm

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19) 0.00874 μg to mg

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2) 55000 g to kg

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20) 9.89 cs to ms

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3) 42.5 L to mL

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21) 12.4 mm^2 to cm^2

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4) 137 in to m (Note: 1 in = 2.54 cm)

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22) 13.6 m^3 to mm^3

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5) 0.847 Mg to kg

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23) 24.5 in to m , You may assume that 2.54 cm = in

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6) 5650 feet to furlongs.
(Assume that **1 furlong = 220 yd**, and that **3 ft = 1 yd**. These relationships are exact!)

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24) 1.35 miles to inches, assuming 1760 yd = mi, 3 ft = yd, 12 in = ft

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7) 0.328 cm to mm

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25) 21.47 inches to yards, assuming 12 in = ft, 3 ft = yd

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8) 1.3 μL to nL

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26) 132 nm to mm

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9) 0.55 mg to g

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27) 1.35×10^6 μg to cg

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10) Calculate how many gallons of gas would be required to drive 155 miles in a car whose fuel usage is 32 miles per gallon.

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28) 1.3 μg to g

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11) 12.4 mg to g

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29) 0.0017 Mg to kg

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12) 1300000 μg to mg

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30) 0.0000129 cm to Mm

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13) 87.0 mL to L

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31) 0.472 yards to inches, assuming 12 in = ft, 3 ft = yd

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14) 64700 cm to Mm

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32) 34.3 in^3 to ft^3, assuming 12 in = ft

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15) 0.00087 km to cm

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33) 27.3 μL to mL

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16) 0.00000009 kg to g

CHM 110 – Practice Problems

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34) 12 m to mm

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17) 0.0000874 m to cm

CHM 110 – Practice Problems

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35) 0.013 ks to ms

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18) 0.7350 L to mL

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36) 11 s to μs