

MAT 104 Supplemental Worksheet 1. UNIT CONVERSIONS

Part I. Metric System

1 kg=1000 g	1 L=1,000 mL
1 g=1,000 mg	1 mL=0.001 L
1 g =1,000,000 mcg	1 m =100 cm=1000 mm
1 mg= 1000 mcg	1 mm=0.001 m=0.1 cm

A. Convert the following units within metric system:

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|-------------------------------|------------------------------|
| 1. 400 mg=_____g | 2. 489 mg=_____g |
| 3. 7 mg=_____g | 4. 7 mg=_____mcg |
| 5. 280 mcg=_____mg=_____g | 6. 325 mcg =_____mg = _____g |
| 7. 2.3 g = _____mg = _____mcg | 8. 4.5g = _____mg = _____mcg |
| 9. 370 mL = _____L | 10. 4500 mL=_____L |
| 11. 0.9 L=_____mL | 12. 0.17 L=_____mL |
| 13. 2.2 m=_____cm | 14. 0.034 m=_____cm |
| 15. 0.025 m=_____mm | 16. 48.2 cm=_____m |

Part II. Household System

1 Oz = 30 mL	1 cup = 240 mL = 8 Oz
1 T(tbs) = 15 mL	1 pint (pt) = 500 mL = 16 Oz
2 tbs = 1 Oz	1,000 mL = 32 Oz
1t (tsp) = 5mL	1 Lb=16 Oz

B. Convert the following units within household system:

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|-----------------------------|------------------------------|
| 1. 1 pt=_____Oz | 2. 2 pt=_____Oz |
| 3. 9 Oz = _____tbs=_____tsp | 4. 4 Oz = _____tbs= _____cup |
| 5. 3 cup = _____Oz | 6. 8 Oz = _____cup |
| 7. 4 tbs = _____Oz | 8. 6 tbs = _____Oz |

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C. Convert the following units between metric and household systems. Round to the nearest tenths as needed.

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|---------------------------|--------------------------|
| 1. 8 Oz = _____ mL | 2. 75 mL = _____ Oz |
| 3. 12 tsp _____ mL | 4. 4 tsp _____ mL |
| 5. 3 ½ Oz = _____ mL | 6. 2 Oz = _____ mL |
| 7. 73 kg = _____ Lb | 8. 42 kg = _____ Lb |
| 9. 15.5 kg = _____ Lb | 10. 67 kg = _____ Lb |
| 11. 168 Lb = _____ kg | 12. 35.8 Lb = _____ kg |
| 13. 8 Lb 12 Oz = _____ kg | 14. 9 Lb 4 Oz = _____ kg |

D. Calculate the fluid intake in milliliters. Client had the following:

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|----------------------------|----------------------------|
| 1. | 2. |
| 1 ¼ cup of milk | ¾ cup of milk |
| 8 tbs chicken broth | 10 tbs chicken broth |
| 8 Oz apple juice | 4 Oz orange juice |
| 2 Oz water with medication | 3 Oz water with medication |

Part III. Additional Conversions in Health Care

E. Convert the following in the equivalent indicated. Round to the nearest tenth.

1. An infant's head circumference is 35 cm. How many inches is this?
2. An infant's head circumference is 41 cm. How many inches is this?
3. An infant's head circumference is 16 in. How many centimeters is this?
4. An infant's head circumference is 19 ½ in. How many centimeters is this?

F. Convert temperatures as indicated. Round to the nearest tenth.

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| 1. 86°F = _____ °C | 2. 93°F = _____ °C |
| 3. 39.6°C = _____ °F | 4. 37.7°C = _____ °F |

Answers:

- A.** 1. 0.4 g; 2. 0.489 g; 3. 0.007 g; 4. 700 mcg; 5. 0.28 mg, 0.00028 g; 6. 0.325 mg, 0.000325 g; 7. 2,300 mg, 2,300,000 mcg; 8. 4,500 mg, 4,500,000 mcg; 9. 0.37 L; 10. 4.5 L; 11. 960 mL; 12. 170 mL; 13. 220 cm; 14. 3.4 cm; 15. 25 mm; 16. 0.482 m
- B.** 1. 16 Oz; 2. 32 Oz; 3. 18 tbs, 27 tsp; 4. 8 tbs, 0.5 cup; 5. 24 Oz; 6. 1 cup; 7. 2 Oz; 8. 3 Oz
- C.** 1. 240 mL; 2. 2.5 Oz; 3. 60 mL; 4. 20 mL; 5. 105 mL; 6. 60 mL; 7. 160.6 Lb; 8. 94.4 Lb; 9. 34.1 Lb; 10. 147.4 Lb; 11. 76.4 kg; 12. 16.3 kg; 13. 4 kg; 14. 4.2 kg
- D.** 1. 720 mL; 2. 540 mL
- E.** 1. 14 in; 2. 16.4 in; 3. 40 in; 4. 48.8 in
- F.** 1. 30°C; 2. 33.9°C; 3. 103.3°F; 4. 99.9°F