ANSWERS

CHAPTER 6 Metric and Household Measurements—Pretest, pp. 113–114

1. 0.8 g
2. 3000 mcg
3. 0.255 g
4. 46,000 mcg
5. 3 mg
6. 680 mg
7. 0.326 L
8. 72.6 lb or $72\frac{3}{5}$ lb
9. 2100 mg
10. 3 kg
11. 100 mL
12. 116.6 lb or $116\frac{3}{5}$ lb
13. 5 mcg
14. 800 g
15. 0.25 mg
16. 300 mL
17. 10,000 g
18. 630 mL
19. 0.733 kg
20. 1,250,000 mcg
21. 0.06 g
22. 250 mcg
23. 250 mL
24. 20.45 kg
25. 0.01 g
26. 1200 g
27. 18.75 mL
28. 710 mg
29. 0.48 L
30. $1\frac{43}{100}$ lb or 1.43 lb

Dimensional Analysis—Pretest, pp. 113–114

1. $x \text{ g} = \frac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \frac{800{,}000 \text{ mcg}}{1}$
   $= 0.8 \text{ g}$
2. $x \text{ mcg} = \frac{1000 \text{ mcg}}{1 \text{ mg}} \times \frac{3 \text{ mg}}{1} = 3000 \text{ mcg}$
3. $x \text{ g} = \frac{1 \text{ g}}{1000 \text{ mg}} \times \frac{255 \text{ mg}}{1} = 0.255 \text{ g}$
4. $x \text{ mcg} = \frac{1000 \text{ mcg}}{1 \text{ mg}} \times \frac{46 \text{ mg}}{1}$
   $= 46{,}000 \text{ mcg}$
5. $x \text{ mg} = \frac{1 \text{ mg}}{1000 \text{ mcg}} \times \frac{3000 \text{ mcg}}{1} = 3 \text{ mg}$
6. $x \text{ mg} = \frac{1000 \text{ mg}}{1 \text{ g}} \times \frac{0.68 \text{ g}}{1} = 680 \text{ mg}$
7. $x \text{ L} = \frac{1 \text{ L}}{1000 \text{ mL}} \times \frac{326 \text{ mL}}{1} = 0.326 \text{ L}$
8. $x \text{ lb} = \frac{2.2 \text{ lb}}{1 \text{ kg}} \times \frac{33 \text{ kg}}{1} = 72.6 \text{ lb}$
9. $x \text{ mg} = \frac{1000 \text{ mg}}{1 \text{ g}} \times \frac{2.1 \text{ g}}{1} = 2100 \text{ mg}$
10. $x \text{ kg} = \frac{1 \text{ kg}}{1000 \text{ g}} \times \frac{3000 \text{ g}}{1} = 3 \text{ kg}$
11. $x \text{ mL} = \frac{1000 \text{ mL}}{1 \text{ L}} \times \frac{0.1 \text{ L}}{1} = 100 \text{ mL}$
12. $x \text{ lb} = \frac{2.2 \text{ lb}}{1 \text{ kg}} \times \frac{53 \text{ kg}}{1} = 116.6 \text{ lb}$
13. $x \text{ mcg} = \frac{1000 \text{ mcg}}{1 \text{ mg}} \times \frac{0.005 \text{ mg}}{1}$
    $= 5 \text{ mcg}$
14. $x \text{ g} = \frac{1000 \text{ g}}{1 \text{ kg}} \times \frac{0.8 \text{ kg}}{1} = 800 \text{ g}$
15. $x \text{ mg} = \frac{1 \text{ mg}}{1000 \text{ mcg}} \times \frac{250 \text{ mcg}}{1} = 0.25 \text{ mg}$
16. $x \text{ mL} = \frac{240 \text{ mL}}{1 \text{ cup}} \times \frac{1.25 \text{ cups}}{1} = 300 \text{ mL}$
17. $x \text{ g} = \frac{1000 \text{ g}}{2.2 \text{ lb}} \times \frac{22 \text{ lb}}{1} = 10{,}000 \text{ g}$
18. $x \text{ mL} = \frac{1000 \text{ mL}}{1 \text{ L}} \times \frac{0.63 \text{ L}}{1} = 630 \text{ mL}$
19. $x \text{ kg} = \frac{1 \text{ kg}}{1000 \text{ g}} \times \frac{733 \text{ g}}{1} = 0.733 \text{ kg}$
20. $x \text{ mcg} = \frac{1{,}000{,}000 \text{ mcg}}{1 \text{ g}} \times \frac{1.25 \text{ g}}{1}$
    $= 1{,}250{,}000 \text{ mcg}$
21. $x \text{ g} = \frac{1 \text{ g}}{1000 \text{ mg}} \times \frac{60 \text{ mg}}{1} = 0.06 \text{ g}$
22. $x \text{ mcg} = \frac{1000 \text{ mcg}}{1 \text{ mg}} \times \frac{0.25 \text{ mg}}{1} = 250 \text{ mcg}$
23. $x \text{ mL} = \frac{1000 \text{ mL}}{1 \text{ L}} \times \frac{0.25 \text{ L}}{1} = 250 \text{ mL}$
24. $x \text{ kg} = \frac{1 \text{ kg}}{2.2 \text{ lb}} \times \frac{45 \text{ lb}}{1} = 20.45 \text{ kg}$
25. $x \text{ g} = \frac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \frac{10{,}000 \text{ mcg}}{1}$
    $= 0.01 \text{ g}$
26. $x \text{ g} = \frac{1000 \text{ g}}{1 \text{ kg}} \times \frac{1.2 \text{ kg}}{1} = 1200 \text{ g}$

27. $x \text{ mL} = \dfrac{15 \text{ mL}}{1 \text{ Tbsp}} \times \dfrac{1.25 \text{ Tbsp}}{1} = 18.75 \text{ mL}$

28. $x \text{ mg} = \dfrac{1000 \text{ mg}}{1 \text{ g}} \times \dfrac{0.71 \text{ g}}{1} = 710 \text{ mg}$

29. $x \text{ L} = \dfrac{1 \text{ L}}{1000 \text{ mL}} \times \dfrac{480 \text{ mL}}{1} = 0.48 \text{ L}$

30. $x \text{ lb} = \dfrac{2.2 \text{ lb}}{1000 \text{ g}} \times \dfrac{650 \text{ g}}{1} = 1.43 \text{ lb}$

CHAPTER 6 Metric and Household Measurements—Work Sheet, pp. 123–124

1. 0.00023 g
2. 5000 mcg
3. 4 mg
4. 330 mg
5. 6000 g
6. 0.725 L
7. 0.002 g
8. 30 mm
9. 0.62 kg
10. 36 mcg
11. 0.46 L
12. 660 mcg
13. 500,000 mcg
14. 45 cm
15. 0.35 g
16. 0.025 g
17. 2500 g
18. 12,000 mcg
19. 3400 g
20. 0.00092 g
21. 2.5 cm
22. 0.3 mg
23. 160 mL
24. 10 mg
25. 0.5 mg
26. 0.36 g
27. 1700 mL
28. 450 mg
29. 0.24 L
30. 0.01 mg
31. 540 mL
32. 45 mL
33. $17\frac{3}{5}$ lb or 17.6 lb
34. 8.415 lb, $8\frac{83}{200}$ lb, or 8.41 lb
35. 17.5 cm
36. 1.36 kg
37. $26\frac{2}{5}$ lb or 26.4 lb
38. $3\frac{2}{25}$ lb or 3.08 lb
39. 30 inches
40. 2,500,000 mcg
41. 1460 mL
42. 7.5 cm
43. 10 mL
44. 360 mL
45. 68.18 kg

Equivalent Calculations	Accurate Equivalent Calculations
40. 2.5 g = 2,500 mcg	
41. 1.46 L = 1,460 mL	X
42. 3 inches = 7.5 cm	X
43. 2 tsp = 30 mL	
44. 1.5 cups = 360 mL	X
45. 150 lb = 68.18 kg	X

Dimensional Analysis—Work Sheet, pp. 123–124

1. $x \text{ g} = \dfrac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \dfrac{230 \text{ mcg}}{1} = 0.00023 \text{ g}$

2. $x \text{ mcg} = \dfrac{1000 \text{ mcg}}{1 \text{ mg}} \times \dfrac{5 \text{ mg}}{1} = 5000 \text{ mcg}$

3. $x \text{ mg} = \dfrac{1 \text{ mg}}{1000 \text{ mcg}} \times \dfrac{4000 \text{ mcg}}{1} = 4 \text{ mg}$

4. $x \text{ mg} = \dfrac{1000 \text{ mg}}{1 \text{ g}} \times \dfrac{0.33 \text{ g}}{1} = 330 \text{ mg}$

5. $x \text{ g} = \dfrac{1000 \text{ g}}{1 \text{ kg}} \times \dfrac{6 \text{ kg}}{1} = 6000 \text{ g}$

6. $x \text{ L} = \dfrac{1 \text{ L}}{1000 \text{ mL}} \times \dfrac{725 \text{ mL}}{1} = 0.725 \text{ L}$

7. $x \text{ g} = \dfrac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \dfrac{2{,}000 \text{ mcg}}{1}$
$= 0.002 \text{ g}$

8. $x \text{ mm} = \dfrac{10 \text{ mm}}{1 \text{ cm}} \times \dfrac{3 \text{ cm}}{1} = 30 \text{ mm}$

9. $x \text{ kg} = \dfrac{1 \text{ kg}}{1000 \text{ g}} \times \dfrac{620 \text{ g}}{1} = 0.62 \text{ kg}$

10. $x \text{ mcg} = \dfrac{1000 \text{ mcg}}{1 \text{ mg}} \times \dfrac{0.036 \text{ mg}}{1} = 36 \text{ mcg}$

11. $x \text{ L} = \dfrac{1 \text{ L}}{1000 \text{ mL}} \times \dfrac{460 \text{ mL}}{1} = 0.46 \text{ L}$

12. $x \text{ mcg} = \dfrac{1000 \text{ mcg}}{1 \text{ mg}} \times \dfrac{0.66 \text{ mg}}{1} = 660 \text{ mcg}$

13. $x \text{ mcg} = \dfrac{1{,}000{,}000 \text{ mcg}}{1 \text{ g}} \times \dfrac{0.5 \text{ g}}{1}$
$= 500{,}000 \text{ mcg}$

14. $x \text{ cm} = \dfrac{2.5 \text{ cm}}{1 \text{ in}} \times \dfrac{18 \text{ in}}{1} = 45 \text{ cm}$

15. $x \text{ g} = \dfrac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \dfrac{350{,}000 \text{ mcg}}{1}$
$= 0.35 \text{ g}$

16. $x \text{ g} = \dfrac{1 \text{ g}}{1000 \text{ mg}} \times \dfrac{25 \text{ mg}}{1} = 0.025 \text{ g}$

17. $x \text{ g} = \dfrac{1000 \text{ g}}{1 \text{ kg}} \times \dfrac{2.5 \text{ kg}}{1} = 2500 \text{ g}$

18. $x \text{ mcg} = \dfrac{1000 \text{ mcg}}{1 \text{ mg}} \times \dfrac{12 \text{ mg}}{1}$
$= 12{,}000 \text{ mcg}$

19. $x \text{ g} = \dfrac{1000 \text{ g}}{1 \text{ kg}} \times \dfrac{3.4 \text{ kg}}{1} = 3400 \text{ g}$

20. $x \text{ g} = \dfrac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \dfrac{920 \text{ mcg}}{1}$
$= 0.00092 \text{ g}$

21. $x \text{ cm} = \dfrac{1 \text{ cm}}{10 \text{ mm}} \times \dfrac{25 \text{ mm}}{1} = 2.5 \text{ cm}$

22. $x \text{ mg} = \dfrac{1 \text{ mg}}{1000 \text{ mcg}} \times \dfrac{300 \text{ mcg}}{1} = 0.3 \text{ mg}$

23. $x \text{ mL} = \dfrac{1000 \text{ mL}}{1 \text{ L}} \times \dfrac{0.16 \text{ L}}{1} = 160 \text{ mL}$

24. $x \text{ mg} = \dfrac{1000 \text{ mg}}{1 \text{ g}} \times \dfrac{0.01 \text{ g}}{1} = 10 \text{ mg}$

25. $x \text{ mg} = \dfrac{1 \text{ mg}}{1000 \text{ mcg}} \times \dfrac{500 \text{ mcg}}{1} = 0.5 \text{ mg}$

26. $x \text{ g} = \dfrac{1 \text{ g}}{1000 \text{ mg}} \times \dfrac{360 \text{ mg}}{1} = 0.36 \text{ g}$

27. $x \text{ mL} = \dfrac{1000 \text{ mL}}{1 \text{ L}} \times \dfrac{1.7 \text{ L}}{1} = 1700 \text{ mL}$

28. $x \text{ mg} = \dfrac{1000 \text{ mg}}{1 \text{ g}} \times \dfrac{0.45 \text{ g}}{1} = 450 \text{ mg}$

29. $x \text{ L} = \dfrac{1 \text{ L}}{1000 \text{ mL}} \times \dfrac{240 \text{ mL}}{1} = 0.24 \text{ L}$

30. $x \text{ mg} = \dfrac{1 \text{ mg}}{1000 \text{ mcg}} \times \dfrac{10 \text{ mcg}}{1} = 0.01 \text{ mg}$

31. $x \text{ mL} = \dfrac{240 \text{ mL}}{1 \text{ cup}} \times \dfrac{2.25 \text{ cups}}{1} = 540 \text{ mL}$

32. $x \text{ mL} = \dfrac{15 \text{ mL}}{1 \text{ Tbsp}} \times \dfrac{3 \text{ Tbsp}}{1} = 45 \text{ mL}$

33. $x \text{ lb} = \dfrac{2.2 \text{ lb}}{1 \text{ kg}} \times \dfrac{8 \text{ kg}}{1} = 17.6 \text{ lb}$

34. $x \text{ lb} = \dfrac{2.2 \text{ lb}}{1000 \text{ g}} \times \dfrac{3825 \text{ g}}{1} = 8.415 \text{ lb}$

35. $x \text{ cm} = \dfrac{2.5 \text{ cm}}{1 \text{ in}} \times \dfrac{7 \text{ in}}{1} = 17.5 \text{ cm}$

36. $x \text{ kg} = \dfrac{1 \text{ kg}}{2.2 \text{ lb}} \times \dfrac{3 \text{ lb}}{1} = 1.36 \text{ kg}$

37. $x \text{ lb} = \dfrac{2.2 \text{ lb}}{1 \text{ kg}} \times \dfrac{12 \text{ kg}}{1} = 26.4 \text{ lb}$

38. $x \text{ lb} = \dfrac{2.2 \text{ g}}{1000 \text{ g}} \times \dfrac{1400 \text{ g}}{1} = 3.08 \text{ lb}$

39. $x \text{ inches} = \dfrac{12 \text{ inches}}{1 \text{ foot}} \times \dfrac{2.5 \text{ feet}}{1}$
$= 30 \text{ inches}$

40. $x \text{ mcg} = \dfrac{1{,}000{,}000 \text{ mcg}}{1 \text{ g}} \times \dfrac{2.5 \text{ g}}{1}$
$= 2{,}500{,}000 \text{ mcg}$

41. $x \text{ mL} = \dfrac{1000 \text{ mL}}{1 \text{ L}} \times \dfrac{1.46 \text{ L}}{1} = 1460 \text{ mL}$

42. $x \text{ cm} = \dfrac{2.5 \text{ cm}}{1 \text{ in}} \times \dfrac{3 \text{ in}}{1} = 7.5 \text{ cm}$

43. $x \text{ mL} = \dfrac{5 \text{ mL}}{1 \text{ tsp}} \times \dfrac{2 \text{ tsp}}{1} = 10 \text{ mL}$

44. $x \text{ mL} = \dfrac{240 \text{ mL}}{1 \text{ cup}} \times \dfrac{1.5 \text{ cups}}{1} = 360 \text{ mL}$

45. $x \text{ kg} = \dfrac{1 \text{ kg}}{2.2 \text{ lb}} \times \dfrac{150 \text{ lb}}{1} = 68.18 \text{ kg}$

Equivalent Calculations	Accurate Equivalent Calculations
40. 2.5 g = 2,500 mcg	
41. 1.46 L = 1,460 mL	X
42. 3 inches = 7.5 cm	X
43. 2 tsp = 30 mL	
44. 1.5 cups = 360 mL	X
45. 150 lb = 68.18 kg	X

CHAPTER 6 Metric and Household Measurements—Posttest 1, pp. 125–126

1. 0.005 g
2. 10,000 mcg
3. 810 mL
4. 0.035 g
5. 27 inches
6. 120,000 mcg
7. 35⅕ lb or 35.2 lb
8. 0.28 L
9. 400 g
10. 3½ feet
11. 12,727.27 g
12. 10 cm
13. 0.5 g
14. 0.037 L
15. 20 cc
16. 320 mL
17. 2500 mg
18. 0.35 g
19. 6.7 kg
20. 300 mL
21. 4000 mcg
22. $5\frac{18}{25}$ lb or 5.72 lb
23. 7.5 mL
24. 200 mL
25. 0.533 L
26. 1,500,000 mcg
27. 0.62 g
28. 2300 g
29. 1¼ feet
30. 3.18 kg

Dimensional Analysis—Posttest 1, pp. 125–126

1. $x \text{ g} = \frac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \frac{5000 \text{ mcg}}{1}$
   $= 0.005 \text{ g}$
2. $x \text{ mcg} = \frac{1000 \text{ mcg}}{1 \text{ mg}} \times \frac{10 \text{ mg}}{1}$
   $= 10{,}000 \text{ mcg}$
3. $x \text{ mL} = \frac{1000 \text{ mL}}{1 \text{ L}} \times \frac{0.81 \text{ L}}{1} = 810 \text{ mL}$
4. $x \text{ g} = \frac{1 \text{ g}}{1000 \text{ mg}} \times \frac{35 \text{ mg}}{1} = 0.035 \text{ g}$
5. $x \text{ inches} = \frac{12 \text{ inches}}{1 \text{ foot}} \times \frac{2.25 \text{ feet}}{1}$
   $= 27 \text{ inches}$
6. $x \text{ mcg} = \frac{1{,}000{,}000 \text{ mcg}}{1 \text{ g}} \times \frac{0.12 \text{ g}}{1}$
   $= 120{,}000 \text{ mcg}$
7. $x \text{ lb} = \frac{2.2 \text{ lb}}{1 \text{ kg}} \times \frac{16 \text{ kg}}{1} = 35.2 \text{ lb}$
8. $x \text{ L} = \frac{1 \text{ L}}{1000 \text{ mL}} \times \frac{280 \text{ mL}}{1} = 0.28 \text{ L}$
9. $x \text{ g} = \frac{1000 \text{ g}}{1 \text{ kg}} \times \frac{0.4 \text{ kg}}{1} = 400 \text{ g}$
10. $x \text{ feet} = \frac{1 \text{ foot}}{12 \text{ inches}} \times \frac{42 \text{ inches}}{1} = 3.5 \text{ feet}$
11. $x \text{ g} = \frac{1000 \text{ g}}{2.2 \text{ lb}} \times \frac{28 \text{ lb}}{1} = 12{,}727.27 \text{ g}$
12. $x \text{ cm} = \frac{2.5 \text{ cm}}{1 \text{ inch}} \times \frac{4 \text{ inches}}{1} = 10 \text{ cm}$
13. $x \text{ g} = \frac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \frac{500{,}000 \text{ mcg}}{1}$
    $= 0.5 \text{ g}$

14. $x \text{ L} = \dfrac{1 \text{ L}}{1000 \text{ mL}} \times \dfrac{37 \text{ mL}}{1} = 0.037 \text{ L}$

15. $x \text{ cc} = \dfrac{1 \text{ cc}}{1 \text{ mL}} \times \dfrac{20 \text{ mL}}{1} = 20 \text{ cc}$

16. $x \text{ mL} = \dfrac{240 \text{ mL}}{1 \text{ cup}} \times \dfrac{4/3 \text{ cups}}{1} = 320 \text{ mL}$

17. $x \text{ mg} = \dfrac{1000 \text{ mg}}{1 \text{ g}} \times \dfrac{2.5 \text{ g}}{1} = 2500 \text{ mg}$

18. $x \text{ g} = \dfrac{1 \text{ g}}{1000 \text{ mg}} \times \dfrac{350 \text{ mg}}{1} = 0.35 \text{ g}$

19. $x \text{ kg} = \dfrac{1 \text{ kg}}{1000 \text{ g}} \times \dfrac{6700 \text{ g}}{1} = 6.7 \text{ kg}$

20. $x \text{ mL} = \dfrac{1000 \text{ mL}}{1 \text{ L}} \times \dfrac{0.3 \text{ L}}{1} = 300 \text{ mL}$

21. $x \text{ mcg} = \dfrac{1000 \text{ mcg}}{1 \text{ mg}} \times \dfrac{4 \text{ mg}}{1} = 4000 \text{ mcg}$

22. $x \text{ lb} = \dfrac{2.2 \text{ lb}}{1000 \text{ g}} \times \dfrac{2600 \text{ g}}{1} = 5.72 \text{ lb}$

23. $x \text{ mL} = \dfrac{5 \text{ mL}}{1 \text{ tsp}} \times \dfrac{1.5 \text{ tsp}}{1} = 7.5 \text{ mL}$

24. $x \text{ mL} = \dfrac{1000 \text{ mL}}{1 \text{ L}} \times \dfrac{0.2 \text{ L}}{1} = 200 \text{ mL}$

25. $x \text{ L} = \dfrac{1 \text{ L}}{1000 \text{ mL}} \times \dfrac{533 \text{ mL}}{1} = 0.533 \text{ L}$

26. $x \text{ mcg} = \dfrac{1{,}000{,}000 \text{ mcg}}{1 \text{ g}} \times \dfrac{1.5 \text{ g}}{1} = 1{,}500{,}000 \text{ mcg}$

27. $x \text{ g} = \dfrac{1 \text{ g}}{1000 \text{ mg}} \times \dfrac{620 \text{ mg}}{1} = 0.62 \text{ g}$

28. $x \text{ g} = \dfrac{1000 \text{ g}}{1 \text{ kg}} \times \dfrac{2.3 \text{ kg}}{1} = 2300 \text{ g}$

29. $x \text{ feet} = \dfrac{1 \text{ foot}}{12 \text{ inches}} \times \dfrac{15 \text{ inches}}{1} = 1.25 \text{ feet}$

30. $x \text{ kg} = \dfrac{1 \text{ kg}}{2.2 \text{ lb}} \times \dfrac{7 \text{ lb}}{1} = 3.18 \text{ kg}$

CHAPTER 6 Metric and Household Measurements—Posttest 2, pp. 127–128

1. 4 mg
2. 0.15 kg
3. 600 mL
4. $1\frac{19}{25}$ lb or 1.76 lb
5. $96\frac{4}{5}$ lb or 96.8 lb
6. 0.76 g
7. 550 mL
8. 3.5 cm
9. 60 mL
10. 965.909 g
11. 100 mL
12. 32,000 mcg
13. 0.618 L
14. 0.1 g
15. $2\frac{1}{3}$ feet
16. 0.714 L
17. 0.35 g
18. 0.25 g
19. 870 mg
20. 7000 mcg
21. 0.037 mg
22. 1400 mL
23. 780 mg
24. 0.225 mg
25. 4.5 kg
26. 200 mL
27. 45 inches
28. 0.42 g
29. 2,600,000 mcg
30. 33.18 kg

Dimensional Analysis—Posttest 2, pp. 127–128

1. $x \text{ mg} = \dfrac{1 \text{ mg}}{1000 \text{ mcg}} \times \dfrac{4000 \text{ mcg}}{1} = 4 \text{ mg}$

2. $x \text{ kg} = \dfrac{1 \text{ kg}}{1000 \text{ g}} \times \dfrac{150 \text{ g}}{1} = 0.15 \text{ kg}$

3. $x \text{ mL} = \dfrac{240 \text{ mL}}{1 \text{ cup}} \times \dfrac{2.5 \text{ cups}}{1} = 600 \text{ mL}$

4. $x \text{ lb} = \dfrac{2.2 \text{ lb}}{1000 \text{ g}} \times \dfrac{800 \text{ g}}{1} = 1.76 \text{ lb}$

5. $x \text{ lb} = \dfrac{2.2 \text{ lb}}{1 \text{ kg}} \times \dfrac{44 \text{ kg}}{1} = 96.8 \text{ lb}$

6. $x \text{ g} = \dfrac{1 \text{ g}}{1000 \text{ mg}} \times \dfrac{760 \text{ mg}}{1} = 0.76 \text{ g}$

7. $x \text{ mL} = \dfrac{1000 \text{ mL}}{1 \text{ L}} \times \dfrac{0.55 \text{ L}}{1} = 550 \text{ mL}$

8. $x \text{ cm} = \dfrac{1 \text{ cm}}{10 \text{ mm}} \times \dfrac{35 \text{ mm}}{1} = 3.5 \text{ cm}$

9. $x \text{ mL} = \dfrac{15 \text{ mL}}{1 \text{ Tbsp}} \times \dfrac{4 \text{ Tbsp}}{1} = 60 \text{ mL}$

10. $x \text{ g} = \dfrac{1000 \text{ g}}{2.2 \text{ lb}} \times \dfrac{2.125 \text{ lb}}{1} = 965.909 \text{ g}$

11. $x \text{ mL} = \dfrac{1000 \text{ mL}}{1 \text{ L}} \times \dfrac{0.1 \text{ L}}{1} = 100 \text{ mL}$

12. $x \text{ mcg} = \dfrac{1000 \text{ mcg}}{1 \text{ mg}} \times \dfrac{32 \text{ mg}}{1}$
$= 32{,}000 \text{ mcg}$

13. $x \text{ L} = \dfrac{1 \text{ L}}{1000 \text{ mL}} \times \dfrac{618 \text{ mL}}{1} = 0.618 \text{ L}$

14. $x \text{ g} = \dfrac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \dfrac{100{,}000 \text{ mcg}}{1}$
$= 0.1 \text{ g}$

15. $x \text{ feet} = \dfrac{1 \text{ foot}}{12 \text{ inches}} \times \dfrac{28 \text{ inches}}{1}$
$= 2.33 \text{ feet}$

16. $x \text{ L} = \dfrac{1 \text{ L}}{1000 \text{ mL}} \times \dfrac{714 \text{ mL}}{1} = 0.714 \text{ L}$

17. $x \text{ g} = \dfrac{1 \text{ g}}{1000 \text{ mg}} \times \dfrac{350 \text{ mg}}{1} = 0.35 \text{ g}$

18. $x \text{ g} = \dfrac{1 \text{ g}}{1{,}000{,}000 \text{ mcg}} \times \dfrac{250{,}000 \text{ mcg}}{1}$
$= 0.25 \text{ g}$

19. $x \text{ mg} = \dfrac{1000 \text{ mg}}{1 \text{ g}} \times \dfrac{0.87 \text{ g}}{1} = 870 \text{ mg}$

20. $x \text{ mcg} = \dfrac{1000 \text{ mcg}}{1 \text{ mg}} \times \dfrac{7 \text{ mg}}{1} = 7000 \text{ mcg}$

21. $x \text{ mg} = \dfrac{1 \text{ mg}}{1000 \text{ mcg}} \times \dfrac{37 \text{ mcg}}{1} = 0.037 \text{ mg}$

22. $x \text{ mL} = \dfrac{1000 \text{ mL}}{1 \text{ L}} \times \dfrac{1.4 \text{ L}}{1} = 1400 \text{ mL}$

23. $x \text{ mg} = \dfrac{1000 \text{ mg}}{1 \text{ g}} \times \dfrac{0.78 \text{ g}}{1} = 780 \text{ mg}$

24. $x \text{ mg} = \dfrac{1 \text{ mg}}{1000 \text{ mcg}} \times \dfrac{225 \text{ mcg}}{1} = 0.225 \text{ mg}$

25. $x \text{ kg} = \dfrac{1 \text{ kg}}{1000 \text{ g}} \times \dfrac{4500 \text{ g}}{1} = 4.5 \text{ kg}$

26. $x \text{ mL} = \dfrac{1000 \text{ mL}}{1 \text{ L}} \times \dfrac{0.2 \text{ L}}{1} = 200 \text{ mL}$

27. $x \text{ inches} = \dfrac{12 \text{ inches}}{1 \text{ foot}} \times \dfrac{3.75 \text{ feet}}{1}$
$= 45 \text{ inches}$

28. $x \text{ g} = \dfrac{1 \text{ g}}{1000 \text{ mg}} \times \dfrac{420 \text{ mg}}{1} = 0.42 \text{ g}$

29. $x \text{ mcg} = \dfrac{1{,}000{,}000 \text{ mcg}}{1 \text{ g}} \times \dfrac{2.6 \text{ g}}{1}$
$= 2{,}600{,}000 \text{ mcg}$

30. $x \text{ kg} = \dfrac{1 \text{ kg}}{2.2 \text{ lb}} \times \dfrac{73 \text{ lb}}{1} = 33.18 \text{ kg}$