

Section 1.6

Exercises

Fill in the blank with the appropriate metric unit.

1. 1000 g = 1 _____
2. 0.01 m = 1 _____
3. 100 l = 1 _____
4. 0.001 g = 1 _____
5. 10 m = 1 _____
6. 0.1 l = 1 _____
7. 100 g = 1 _____
8. 0.001 m = 1 _____
9. 0.001 l = 1 _____
10. 1000 m = 1 _____

Fill in the blank with the equivalent measurement in the given length unit.

11. 34 m = _____ cm
12. 5.8 dm = _____ hm
13. 9003 mm = _____ m
14. 4802 cm = _____ km
15. 0.004 hm = _____ dm
16. 0.035 dam = _____ mm
17. 0.153 m = _____ km
18. 340 km = _____ m

Fill in the blank with the equivalent measurement in the given mass unit.

19. 0.0044 g = _____ mg
20. 58006 g = _____ kg
21. 34.98 cg = _____ mg
22. 52.7 dg = _____ g
23. 84 kg = _____ g
24. 9.0103 g = _____ dg
25. 0.00205 mg = _____ cg
26. 0.0004501 kg = _____ mg

Fill in the blank with the equivalent measurement in the given volume unit.

27. 459 ml = _____ l
28. 2 l = _____ dl

29. 0.042 kl = _____ l
30. 5 ml = _____ dl
31. 79.42 hl = _____ cl
32. 0.012 ml = _____ l
33. 0.00000407 kl = _____ ml
34. 0.24107 dal = _____ ml

Which metric length unit (kilometer, meter, centimeter or millimeter) would be most appropriate for measuring each of the following lengths.

35. The diameter of a quarter
36. The width of our classroom
37. The distance from Houston to Austin
38. The width of a strand of hair
39. The length of your Cougar 1 Card
40. Your height

Which metric mass unit (metric tonne = 1000 kg, kilogram, gram, milligram) would be most appropriate for measuring each of the following masses?

41. The mass of a pencil
42. The mass of a newborn child
43. The mass of a small apple
44. The mass of a full grown elephant
45. The mass of a dose of medicine
46. The mass of your car

Which metric volume unit (kiloliter, liter, deciliter, milliliter) would be most appropriate for measuring the volume of the following objects?

47. A can of soda
48. The gas tank of a car
49. A swimming pool
50. A dose of medicine
51. A carton of milk.
52. A glass of juice

53. The diameter of a dime is approximately

- (a) 2 mm
- (b) 20 dm
- (c) 2 m
- (d) 2 cm
- (e) 0.02 km.

54. The length of a football field is approximately

- (a) 9 m
- (b) 90 m
- (c) 900 cm
- (d) 900 mm
- (e) 0.9 km.

55. The mass of a healthy newborn child could be approximately

- (a) 3.5 g
- (b) 3.5 kg
- (c) 0.35 kg
- (d) 35 g
- (e) 3500 mg

56. The mass of a raisin is approximately

- (a) 1 g
- (b) 1 mg
- (c) 1 kg
- (d) 100 g
- (e) 0.01 g

57. The mass of a regular size candy bar is about

- (a) 2.8 kg
- (b) 2.8 mg
- (c) 2.8 g
- (d) 28 g
- (e) 28 cg

58. The mass of a box of cereal is approximately

- (a) 500 mg
- (b) 500 kg
- (c) 500 g
- (d) 5 kg
- (e) 5 dg

59. The volume of a teaspoon of medicine is approximately

- (a) 5 dl
- (b) 5 ml
- (c) 5 l
- (d) 5 kl
- (e) 5 hl

60. The volume of a can of soda is

- (a) 355 ml
- (b) 355 dl
- (c) 3.55 l
- (d) 0.355 kl
- (e) 3.55 ml

61. The weatherman reports that the current temperature is $15^{\circ}C$. Which of the following would be the most appropriate clothing choice?

- (a) A heavy winter coat.
- (b) Several layers of sweaters for cold weather.
- (c) A long-sleeve shirt or light sweater for the cool breeze.
- (d) Your favorite summer shorts outfit for a hot afternoon.

62. The weatherman reports that the current temperature is $35^{\circ}C$. Which of the following would be the most appropriate clothing choice?

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Convert the following temperatures in degrees Celsius to degrees Fahrenheit.

- 63. $-4^{\circ}C$
- 64. $5^{\circ}C$
- 65. $40^{\circ}C$
- 66. $72^{\circ}C$
- 67. $80^{\circ}C$
- 68. $200^{\circ}C$
- 69. $150^{\circ}C$
- 70. $350^{\circ}C$

Convert the following temperatures in degrees Fahrenheit to degrees Celsius.

71. $0^{\circ}F$

72. $20^{\circ}F$

73. $48^{\circ}F$

74. $72^{\circ}F$

75. $90^{\circ}F$

76. $100^{\circ}F$

77. $300^{\circ}F$

78. $400^{\circ}F$

79. A rectangular piece of plywood is 60 cm wide by 2.2 m long. Find its area in square meters.

80. A rectangular field is 0.45 km wide and 1.04 m long.

(a) Find the area of the field in square kilometers.

(b) Find the area of the field in square meters.

81. A city block is a square with sides of length 0.15 km.

(a) Find the area of the block in square kilometers.

(b) Find the area of the block in square meters.

82. Find the area, in square meters, of a circle with a radius of 5.75 m.

83. A moving box is 350 cm wide by 450 cm long by 250 cm high.

(a) Find the volume of the box in cubic centimeters.

(b) Find the volume of the box in cubic meters.

84. A shipping crate is a cube with sides of length 3.34 m. Find the volume of the crate in cubic meters.

85. A cylindrical can has height 0.55 m and radius 40 cm.

(a) Find the volume of the can in cubic centimeters.

(b) Find the volume of the can in cubic meters.

86. A cylindrical can has height 12 cm and radius 7.5 cm. Find the volume of the can in cubic centimeters.