

Module 3: Understanding the Metric System

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Answer the following questions.

- 1) Write down the abbreviations for *meters*, *decimeters*, *centimeters*, and *millimeters*.

m, dm, cm, mm

- 2) How does the abbreviation for miles differ from the abbreviation for meters?

miles (m); meter (m)

- 3) Order the following lengths of measure from smallest to largest.

1 dm, 1 mm, 1 m, 1 cm

1 mm, 1 cm, 1 dm, 1 m

- 4) Order the following lengths of measure from largest to smallest.

450 mm, 40 cm, $\frac{1}{2}$ m, 6 dm, 1 yd

1 yd, 6 dm, $\frac{1}{2}$ m, 450 mm, 40 cm

- 5) A length of 3 dm is equal to a length of how many millimeters? 300 mm

- 6) A length of 70 cm is equal to a length of how many decimeters? 7 dm

- 7) A length of $\frac{1}{4}$ m is equal to a length of how many millimeters? 250 mm

- 8) A length of $\frac{1}{5}$ m is equal to a length of how many decimeters? 2 dm

Fill in the blank with the appropriate metric unit. Choose m, dm, cm, or mm.

- 9) The width of the palm of your hand is 10 ____ . cm



- 10) The height of a soda can is 12 ____ . cm



- 11) The length of a key is 50 ____ . mm



- 12) The diameter of a nickel is about 2 ____ . cm

- 13) The length of your index finger is about 7 ____ . cm

- 14) The average length of an adult female femur bone is about 45 ____ . cm

- 15) A cellular phone is approximately 120 ____ in length. mm

- 16) A plastic fork is approximately 16 ____ in length. cm

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17) Your teacher is about 1.7 ____ tall.

m

18) A CD-ROM disk has a thickness of

1.2 ____ .

mm

Convert each measure to the indicated unit.

19) 25 cm to mm **250 mm**

20) 35 dm to mm **3,500 mm**

21) 0.2 m to cm **20 cm**

22) 0.7 cm to mm **7 mm**

23) 7.6 dm to cm **76 cm**

24) 278 mm to cm **27.8 cm**

25) 3.2 dm to m **0.32 m**

26) 5 mm to dm **0.05 dm**

27) 1.5 m to cm **150 cm**

28) 17.5 dm to m **1.75 dm**

29) 1,578 mm to m **1.578 m**

30) 349 cm to m **3.49 m**

Fill in the blank with the appropriate metric unit. Choose m, dam, hm, or km.

31) The length of a car is about 5 ____.

m



32) The height the Empire State Building is about 45 ____.

dam



33) The radius of the earth is approximately 6,000 ____.

km

34) The distance from New York to Los Angeles is about 4,000 ____.

km

35) The height of the Statue of Liberty is about 1 ____.

hm



36) The traveled length across the Golden Gate Bridge is about 2 ____.

dam



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37) A Boeing 747 Jumbo Jet is approximately 6.4 ____ in length.
dam

38) The length of a NFL football field is approximately 9.1 ____ in length.
dam

Convert each measure to the indicated unit by moving the decimal point appropriately. Write down the number of times you moved the decimal point and the direction you moved it.

39) 3.8 hm to dm
3,800 dm; right three times

40) 2,385 mm to hm
0.02385 hm; left five times

41) 0.7 cm to m
0.007 m; left two times

42) 0.91 dam to dm
91 dm; right two times

43) 80.04 cm to hm
0.008004 hm; left four times

44) 31.08 m to hm
0.3108 hm; left two times

45) 19 hm to m
1,900 m; right two times

46) 31 dam to cm
31,000 cm; right three times

47) 3,498 dm to km
0.3498 km; left four times

48) 0.164 km to cm
16,400 cm; right five times

49) 0.028 dam to dm
2.8 dm; right two times

50) 1,578 mm to dm
15.78 dm; left two times