WONDERLEARNERZ PRIMARY ACADEMY â€" OFFICIAL ANSWER KEY & MARKING SCHEME

Capacity and Volume: Worksheet 5 [ANSWER KEY]

Grade 5 | Mathematics | Ch 14: Capacity and Volume | Total Marks: 19 | Time: 45 Minutes

Q1. Convert 10 liters into milliliters. [1 Mark]

Correct Answer: 10,000 mL

Explanation: 1 liter = 1,000 milliliters. 10 x 1,000 = 10,000 mL.

Q2. How many liters and milliliters are in 4,820 milliliters? [1 Mark]

Correct Answer: 4 L 820 mL

Explanation: 4,820 mL = 4,000 mL + 820 mL = 4 L 820 mL.

Q3. What is the volume of a rectangular aquarium measuring 40 cm long, 25 cm wide, and [1 Mark]
20 cm deep in cubic centimeters?

Correct Answer: 20,000 cmÂ³

Explanation: Volume = length x width x height = 40 x 25 x 20 = 20,000 cmÂ³.

Q4. How many 250 mL cups of juice can be poured from a 2-liter bottle? [1 Mark]

Correct Answer: 8 cups

Explanation: 2 L = 2,000 mL. 2,000 / 250 = 8 cups.

Q5. At the Central Botanical Gardens, a water reservoir holds 15,000 liters. During [1 Mark]
maintenance, 4,650 liters were drained in the morning and 3,850 liters in the afternoon. How many liters of water remain in the reservoir?

Correct Answer: 6,500 L

Explanation: Total drained = 4,650 + 3,850 = 8,500 L. Remaining = 15,000 - 8,500 = 6,500 liters.

Q6. A nurse administers 15 mL of liquid medicine to a patient 3 times a day. How much [1 Mark]
medicine is administered over a full 7-day week?

Correct Answer: 315 mL

Explanation: Daily dose = 15 x 3 = 45 mL. Over 7 days = 45 x 7 = 315 mL.

Q7. An oil tank contains 8 L 400 mL of cooking oil. If 2 L 750 mL is poured out for [1 Mark]
frying, how much oil remains in the tank?

Correct Answer: 5 L 650 mL

Explanation: 8,400 mL - 2,750 mL = 5,650 mL = 5 L 650 mL.

Q8. Complete the capacity equation: 6 L 50 mL = [?] milliliters. [1 Mark]

Correct Answer: 6,050

Explanation: 6 x 1,000 + 50 = 6,050 mL.

Q9. Find the missing volume to fill a 1-liter jug: 340 mL + [?] mL = 1,000 mL. [1 Mark]

Correct Answer: 660

Explanation: 1,000 - 340 = 660 mL.

Q10. A student says: '3.5 liters is 350 milliliters.' Explain the error and state the [1 Mark]
correct milliliter volume.

Correct Answer: 3,500 mL

Explanation: 1 liter = 1,000 mL, so 3.5 x 1,000 = 3,500 mL, not 350 mL.

Q11. Maya writes: '1 liter equals 100 milliliters.' Correct Maya's conversion rule. [1 Mark]

Correct Answer: 1 liter = 1,000 milliliters

Explanation: The prefix 'milli-' means one-thousandth, so 1 L = 1,000 mL.

Q12. Explain the relationship between 1 cubic centimeter (1 cmÂ³) and 1 milliliter (1 [2 Marks]
mL) of liquid.

Correct Answer: By international definition in the metric system, 1 cubic centimeter is exactly equivalent to 1 milliliter in volume capacity (1 cmÂ³ = 1 mL).

Explanation: 1 cmÂ³ of volume displaces exactly 1 mL of fluid capacity.

Q13. If Container A is tall and narrow while Container B is short and wide, why can both hold the exact same capacity of water? **[2 Marks]**

Correct Answer: Liquid capacity is determined by internal 3D volume (length x width x height), not single-dimension height. Container B compensates for height with greater cross-sectional base area.

Explanation: Volume is a product of three dimensions; height can be traded for wider base area.

Q14. A rectangular fish tank is 50 cm long, 30 cm wide, and 40 cm tall. If it is filled with water up to a depth of 35 cm, how many liters of water are inside? (Hint: 1,000 cmÂ³ = 1 L). **[2 Marks]**

Correct Answer: 52.5 liters

Explanation: Volume = 50 x 30 x 35 = 52,500 cmÂ³. 52,500 / 1,000 = 52.5 liters.

Q15. A leaky faucet drips 5 mL of water every minute. How many liters of water are wasted if the leak drips continuously for 24 hours? **[2 Marks]**

Correct Answer: 7.2 liters

Explanation: In 24 hours = 24 x 60 = 1,440 minutes. Total drip = 1,440 x 5 = 7,200 mL = 7.2 liters.