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

Distance and Measurement: Worksheet 3 [ANSWER KEY]

Grade 5 | Mathematics | Ch 8: Distance and Measurement | Total Marks: 19 | Time: 45 Minutes

Q1. Convert 9 kilometers into meters. [1 Mark]

Correct Answer: 9,000 m

Explanation: 1 kilometer = 1,000 meters. 9 x 1,000 = 9,000 meters.

Q2. How many centimeters are in 4.5 meters? [1 Mark]

Correct Answer: 450 cm

Explanation: 1 meter = 100 centimeters. 4.5 x 100 = 450 cm.

Q3. Convert 3,850 meters into kilometers and meters. [1 Mark]

Correct Answer: 3 km 850 m

Explanation: 3,850 m = 3,000 m + 850 m = 3 km 850 m.

Q4. Which measurement unit is most appropriate for measuring the distance between two distant cities? [1 Mark]

Correct Answer: Kilometers

Explanation: Kilometers are the standard metric unit for long geographical distances.

Q5. At the Harbor Marine Terminal, a walking nature trail is 2 km 650 m long. If a hiker walks the trail twice, what total distance did the hiker cover in meters? [1 Mark]

Correct Answer: 5,300 m

Explanation: 2 km 650 m = 2,650 m. Twice = 2,650 x 2 = 5,300 meters (or 5 km 300 m).

Q6. A highway crew repaved 14 km 300 m of road in week one and 11 km 850 m in week two. What total distance of highway was repaved? [1 Mark]

Correct Answer: 26 km 150 m

Explanation: 14,300 m + 11,850 m = 26,150 m = 26 km 150 m.

Q7. A spool had 50 meters of electrical wire. An electrician used 32 meters and 45 centimeters. How much wire is left on the spool? [1 Mark]

Correct Answer: 17 m 55 cm

Explanation: 50 m 00 cm - 32 m 45 cm = 17 m 55 cm.

Q8. Fill in the missing value: 5 km 200 m = [?] meters. [1 Mark]

Correct Answer: 5,200

Explanation: 5 x 1,000 + 200 = 5,200 meters.

Q9. Complete the conversion: 750 cm = [?] m 50 cm. [1 Mark]

Correct Answer: 7

Explanation: 700 cm = 7 meters.

Q10. Tom converts 2 km 50 m into meters as 2,500 m. What is Tom's mistake and what is the correct number of meters? [1 Mark]

Correct Answer: 2,050 m

Explanation: Tom treated 50 m as 500 m. 2 km = 2,000 m, so 2,000 + 50 = 2,050 meters.

Q11. A student says: '1.2 meters is 12 centimeters.' Identify the error and provide the correct conversion. [1 Mark]

Correct Answer: 120 centimeters

Explanation: 1 meter = 100 cm, so 1.2 x 100 = 120 cm, not 12 cm.

Q12. Explain why the metric system prefixes (kilo-, centi-, milli-) make unit conversions simpler than non-metric systems. [2 Marks]

Correct Answer: Metric prefixes are based on powers of 10. Converting between units simply involves multiplying or dividing by 10, 100, or 1,000 (shifting the decimal point).

Explanation: Powers of 10 align directly with our decimal base-10 number system.

Q13. A student measures a tabletop using a 30 cm ruler and reports 120.4 cm. Why might measuring a long distance with multiple short ruler placements introduce errors? **[2 Marks]**

Correct Answer: Each time the ruler is picked up and placed down, slight misalignments and gaps or overlaps accumulate, compounding the total measurement error.

Explanation: Repeated manual repositioning compounds systematic and human alignment errors.

Q14. A school 400-meter running track requires runners to complete 12.5 laps. What total distance do the runners cover in kilometers? **[2 Marks]**

Correct Answer: 5 km

Explanation: 12.5 x 400 m = 5,000 meters. 5,000 m / 1,000 = 5 km.

Q15. A marathon is 42 km 195 m long. If a runner has completed 28 km 650 m, exactly how much distance remains to reach the finish line? **[2 Marks]**

Correct Answer: 13 km 545 m

Explanation: 42,195 m - 28,650 m = 13,545 m = 13 km 545 m.