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

Multiplication and Division: Worksheet 5 [ANSWER KEY]

Grade 5 | Mathematics | Ch 9: Multiplication and Division | Total Marks: 19 | Time: 45 Minutes

Q1. Evaluate: 305 x 22. [1 Mark]

Correct Answer: 6,710

Explanation: Multiply 305 x 22 = 6,710.

Q2. Divide: 2,040 / 12. [1 Mark]

Correct Answer: 170

Explanation: 2,040 / 12 = 170.

Q3. What is the remainder when 487 is divided by 15? [1 Mark]

Correct Answer: 7

Explanation: 487 / 15 = 32 with a remainder of 7 (15 x 32 = 480; 487 - 480 = 7).

Q4. Which multiplication strategy uses the distributive property to solve 24 x 15? [1 Mark]

Correct Answer: (24 x 10) + (24 x 5)

Explanation: Distributive property splits 15 into 10 + 5: (24 x 10) + (24 x 5) = 240 + 120 = 360.

Q5. At the Central Botanical Gardens, an auditorium has 28 rows of seats with 35 seats in each row. What is the total seating capacity? [1 Mark]

Correct Answer: 980 seats

Explanation: Multiply rows by seats per row: 28 x 35 = 980 seats.

Q6. A carton holds 24 bottles of mineral water. If a charity receives 1,560 bottles, how many complete cartons can be packed? [1 Mark]

Correct Answer: 65 cartons

Explanation: 1,560 / 24 = 65 complete cartons.

Q7. A school field trip has 285 students. Each tour bus holds 48 passengers. How many buses must be chartered so every student has a seat? [1 Mark]

Correct Answer: 6 buses

Explanation: 285 / 48 = 5 with remainder 45. To seat all students, 6 buses are needed.

Q8. Find the missing factor: 45 x [?] = 1,350. [1 Mark]

Correct Answer: 30

Explanation: 1,350 / 45 = 30.

Q9. Complete the division equation: [?] / 16 = 25. [1 Mark]

Correct Answer: 400

Explanation: 25 x 16 = 400.

Q10. A student calculates 304 x 12 as follows: 304 x 10 = 3040, 304 x 2 = 608, sum = 9120. Identify the mistake and write the correct product. [1 Mark]

Correct Answer: 3,648

Explanation: The student misaligned the partial products during addition. Correct sum = 3,040 + 608 = 3,648.

Q11. When dividing 500 by 8, a student writes 'Quotient = 62, Remainder = 8'. What fundamental rule of division was violated? [1 Mark]

Correct Answer: Remainder must be strictly less than divisor (Remainder is 4, not 8)

Explanation: The remainder can never equal or exceed the divisor (8). 500 / 8 = 62 R 4.

Q12. Explain why multiplying any number by 25 is equivalent to multiplying by 100 and then dividing by 4. [2 Marks]

Correct Answer: Since 25 = 100 / 4, multiplying by 25 is mathematically identical to scaling by 100 and dividing by 4 (e.g. 36 x 25 = 3,600 / 4 = 900).

Explanation: 25 is 100/4, allowing rapid mental calculation using decimal place shifts.

Q13. Why is division considered the inverse operation of multiplication? Show using 48 / 6 = 8. **[2 Marks]**

Correct Answer: Division undoes multiplication: if 6 x 8 = 48, then 48 / 6 = 8 and 48 / 8 = 6. They represent the same fact family.

Explanation: Multiplication packages equal groups; division unpacks totals into equal groups.

Q14. A mystery 3-digit number multiplied by 18 gives a product ending in 0. When divided by 25, the remainder is 0. If the number is between 300 and 350, find the number. **[2 Marks]**

Correct Answer: 325 or 350

Explanation: Multiples of 25 between 300 and 350 are 325 and 350. Both satisfy the condition: 325 x 18 = 5,850; 350 x 18 = 6,300.

Q15. A warehouse packed 3,420 laptops into crates of 36. If each filled crate sells for $14,400, what is the value of all packed crates? **[2 Marks]**

Correct Answer: $1,368,000

Explanation: Number of crates = 3,420 / 36 = 95 crates. Total value = 95 x $14,400 = $1,368,000.