WONDERLEARNERZ PRIMARY ACADEMY â€¢ PRACTICE & ASSESSMENT WORKSHEET

Mathematical Reasoning and Word Problems: Worksheet 3

Grade 5 | Mathematics | Ch 20: Mathematical Reasoning and Word Problems | Total Marks: 19 | Time: 45 Minutes

Student Name: _____ **Roll / ID No:** _____

Grade / Section: _____ **Date:** _____ **Score:** _____ / 19

Instructions: Section A (Q1-Q4): Choose the correct option (A, B, C, or D). Section B (Q5-Q9): Write your exact one-word or numerical answer. Section C & D (Q10-Q15): Write your detailed answers, corrections, and show all working steps neatly in the space provided.

Q1. A farmer has 15 cows and 25 chickens. How many total legs are there on the farm? **[1 Mark]**

( ) A. 110 legs
( ) B. 80 legs
( ) C. 100 legs
( ) D. 120 legs

Q2. If 5 identical notebooks cost $15, how much will 12 of the same notebooks cost? **[1 Mark]**

( ) A. $36
( ) B. $30
( ) C. $40
( ) D. $48

Q3. A mystery number is multiplied by 4, and then 12 is added. The result is 52. What is the mystery number? **[1 Mark]**

( ) A. 10
( ) B. 12
( ) C. 8
( ) D. 11

Q4. Which two consecutive whole numbers have a product of 156? **[1 Mark]**

( ) A. 12 and 13
( ) B. 11 and 12
( ) C. 13 and 14
( ) D. 10 and 15

Q5. At the Harbor Marine Terminal, an event organizer arranges 144 chairs into rows. The number of chairs in each row is 2 more than the number of rows. How many rows of chairs are there? **[1 Mark]**

Q6. Together, Ethan and his sister have 64 marbles. Ethan has 12 more marbles than his sister. How many marbles does his sister have? **[1 Mark]**

Q7. A water tank empties at a rate of 18 liters per minute while a pipe fills it at 25 liters per minute. What is the net increase in water volume after 20 minutes? **[1 Mark]**

Q8. Solve the logic puzzle: [?] + [?] = 18 and [?] x [?] = 77. The two numbers are 7 and [?]. **[1 Mark]**

Q9. Work backwards to find X: ((X + 6) x 3) - 9 = 45. X = [?]. **[1 Mark]**

Q10. A student solves: 'If 3 cats catch 3 mice in 3 minutes, how many cats catch 100 mice in 100 minutes?' The student answers '100 cats.' Explain the flaw and state the correct answer. **[1 Mark]**

Q11. To divide $120 between two friends in a 2:1 ratio, a student calculates $120 / 2 = $60 each. What is the correct division? **[1 Mark]**

Q12. Explain why working backwards from the final result is an effective strategy for solving multi-step arithmetic mystery problems. **[2 Marks]**

Q13. If the perimeter of a rectangle is fixed at 24 cm, which dimensions (length and width) yield the greatest possible area? Explain why. **[2 Marks]**

Q14. In a barn, there are horses and ducks. Counting heads gives 35 heads; counting legs gives 110 legs. How many horses and how many ducks are in the barn? **[2 Marks]**

Q15. A grandfather's age is 6 times his grandson's age. In 12 years, the grandfather will be only 3 times as old as his grandson. What are their current ages? **[2 Marks]**