WONDERLEARNERZ PRIMARY ACADEMY â€¢ PRACTICE & ASSESSMENT WORKSHEET

Spatial Awareness and Directions - Worksheet 1

Grade 3 | Mathematics | Ch 2: Spatial Awareness and Directions | Total Marks: 19 | Time: 30 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. Which cardinal direction is directly opposite to West on a standard compass rose? [1 Mark]

( ) A. East
( ) B. North
( ) C. South
( ) D. North-West

Q2. If you are facing North and make a 90Â° quarter turn clockwise, which direction do [1 Mark]
you face?

( ) A. East
( ) B. West
( ) C. South
( ) D. North-East

Q3. On a coordinate map, a rover starts at (1, 1) and travels 4 units East and 3 units [1 Mark]
North. What is the rover's final coordinate?

( ) A. (5, 4)
( ) B. (4, 5)
( ) C. (4, 3)
( ) D. (6, 4)

Q4. How many quarter turns (90Â°) are in one complete full turn (360Â°)? [1 Mark]

( ) A. 4 quarter turns
( ) B. 2 quarter turns
( ) C. 3 quarter turns
( ) D. 6 quarter turns

Q5. At the Botanical Garden Maze, a guide walks 4 blocks East, then 3 blocks North, [1 Mark]
and finally 2 blocks West. What is the guide's net horizontal distance from start?

Q6. A delivery van starts at warehouse (0, 0) and makes 3 drops: (2, 0), then (2, 4), [1 Mark]
then (5, 4). If each grid unit is 1 km, what total driving distance did the van cover?

Q7. A hiker on the Botanical Garden Maze is facing South. After making a half turn [1 Mark]
(180Â°), which direction are they facing, and which way should they turn 90Â° to face West?

Q8. A treasure chest is buried at grid location (8, 6). A pirate starts at (4, 3). How many blocks East and North must the pirate walk? [1 Mark]

Q9. Find the missing turn: 'Facing North, turn quarter turn clockwise (face East), then turn [?] to face South.' [1 Mark]

Q10. Kiran reads a treasure map and records location (4, 7) as 'Row 4, Column 7'. What is Kiran's error? [1 Mark]

Q11. A student says: 'If I am facing East and make two quarter turns clockwise, I will be facing North.' What direction will the student actually face? [1 Mark]

Q12. Why are compass directions (N, S, E, W) universally preferred over 'left' and 'right' when giving long-distance directions on maps? [2 Marks]

Q13. If you walk in a closed square loop: 10 meters North, 10 meters East, 10 meters South, and 10 meters West, where do you end up? [2 Marks]

Q14. A search rescue drone patrols a perimeter grid. It flies from (2, 2) to (6, 2), then to (6, 5), then to (2, 5), and returns to (2, 2). What is the total perimeter distance flown? [2 Marks]

Q15. A robot faces North. It executes 5 successive quarter turns clockwise. In which direction is it facing at the end? [2 Marks]