Name: _____ **Date:** _____

Operation Robot Picnic: Can You Program the Perfect Path? Grade 3 Algorithms Quiz

Third graders gain precision in computational thinking by debugging robot routines, decomposing snack-sorting tasks, and sequencing steps for a successful outdoor adventure.

---

1. A robot needs to pack a lunch. Which of these is the best first step in 'Problem Decomposition' for this task?

A. Eating the sandwich
B. Listing the different items needed for a lunch
C. Buying a new backpack
D. Driving to the park

2. If an algorithm for making a paper airplane has a mistake in Step 2, the airplane will always fly perfectly anyway.

A. True
B. False

3. When you find a mistake in your set of instructions and fix it, you are _____.

A. Deleting
B. Looping
C. Debugging
D. Typing

4. You are creating an algorithm to plant a seed. Which sequence is in the correct logical order?

A. Water it, Put dirt on top, Poke a hole, Drop seed
B. Poke a hole, Drop seed, Put dirt on top, Water it
C. Drop seed, Poke a hole, Water it, Put dirt on top
D. Put dirt on top, Water it, Drop seed, Poke a hole

5. Why would a programmer want to make an algorithm more 'efficient'?

A. To make the instructions longer and harder to read
B. To make the task take more time
C. To solve the problem in fewer steps or less time
D. To change the color of the robot

6. A set of step-by-step instructions used to complete a task or solve a problem is called an _____.

A. Algorithm
B. Alarm
C. Alphabet
D. Airplane

Name: _____ **Date:** _____

7. Computers are smart enough to guess what you mean even if your algorithm steps are out of order.

A. True
B. False

8. If you are sorting a box of mixed crayons by color, which sub-problem is part of that task?

A. Checking the size of the box
B. Deciding which color a single crayon belongs to
C. Counting how many miles away the factory is
D. Naming the robot 'Sparky'

9. When we test an algorithm with different inputs to see if it breaks, we are doing _____.

A. Drawing
B. Testing
C. Sleeping
D. Deleting

10. Using a map to find the shortest way to a friend's house is an example of practice with algorithms.

A. True
B. False