Name: _____   Date: _____

Could You Direct a Robot Chef? 4th Grade Programming Logic Quiz

Apply algorithmic thinking and debugging skills to sequences, nested conditions, and efficient loops in a virtual kitchen setting.

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1. A robot is programmed to make toast. If the sensor detects the bread is 'Burnt', what programming concept should determine if the robot pops the toaster or keeps heating?

    A.   A variable

    B.   A conditional

    C.   An event handler

    D.   A comment

2. In a video game, you want to store the number of magic crystals a player collects. Which programming tool acts like a 'labeled box' to hold this changing number?

    A.   A function

    B.   A loop

    C.   A variable

    D.   A syntax cloud

3. True or False: A loop is the most efficient way to make a character walk 100 steps rather than writing the 'move' command 100 times.

    A.   True

    B.   False

4. You have a block of code that draws a perfect star. You want to use this same star in five different levels of your game. You should wrap the code in a:

    A.   Variable

    B.   Conditional

    C.   Function

    D.   Boolean

5. If a programmer writes a 'While Loop' but forgets to include a way for the condition to change, the program might get stuck in an _____ loop.

    A.   Instant

    B.   Infinite

    C.   Invisible

    D.   Internal

6. True or False: In programming, the variable name 'playerScore' is exactly the same as 'playerscore'.

    A.   True

    B.   False

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7. Which of these is the best example of a conditional in real life?

    A.   Walking to school every morning

    B.   Brushing your teeth for two minutes

    C.   If it is raining, then take an umbrella

    D.   Memorizing a list of names

8. When a programmer finds a mistake in their code that prevents it from running correctly, the process of finding and fixing that mistake is called _____.

    A.   Decoding

    B.   Looping

    C.   Debugging

    D.   Styling

9. Imagine a loop that says: 'Repeat 4 times: [Move Forward, Turn Left 90 degrees]'. What shape will this code create?

    A.   A triangle

    B.   A circle

    C.   A square

    D.   A straight line

10. True or False: Computers need a very specific 'Sequence' (the exact order of steps) to perform a task correctly.

    A.   True

    B.   False