

LEGO MINDSTORMS NXT

Lesson 4 – Test

Question 1 (10 points)

_____ transfer data from one data hub to another.

Answer: _____

Question 2 (10 points)

Data blocks are located in the Common palette.

- a.) True
- b.) False

Question 3 (15 points)

With data hubs, data is transferred straight across a hub's _____ plug to its adjacent _____ plug.

Answer:

1. _____
2. _____

Question 4 (10 points)

Data wires carry three different types of data, which are: (check all that apply)

- Logic
- Number
- Color
- Text
- Electrical

Question 5 (10 points)

If a data wire is used as an input to a block, any hardcoded or typed configuration data for that input will be overwritten.

- a.) True
- b.) False

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Question 6 (10 points)

A _____ is a block that represents of a series of other blocks.

- a.) Compare Block
- b.) Variable Block
- c.) My Block
- d.) Text Block

Question 7 (10 points)

This block is used for storing data values in the NXT Brick's internal memory.

- a.) My Block
- b.) Variable Block
- c.) Logic Block
- d.) Data Block

Question 8 (25 points)

Match the following Data blocks with their corresponding descriptions:

_____ Logic Block	a.) It performs such operations as Add, Subtract, Multiply and Divide, and it outputs as a number value.
_____ Math Block	b.) It takes two numbers as input and checks as to whether or not the first number is greater than, less than, or equal to the second number.
_____ Compare Block	c.) It allows you to combine up to three different text strings into a single text string.
_____ Range Block	d.) It is used to convert a numerical value to its textual character value.
_____ Random Block	e.) Its operations consist of And, Or, XOr, and Not.
_____ Text Block	f.) It is useful for creating a robot that exhibits unpredictable behavior because the block's output will vary each time the program runs.
_____ Number to Text Block	g.) It checks as to whether or not a test value number is within or outside of a given numerical range.