Answer the following questions:

1. Which generation of the 4-bit simulators above is the most abstract? Why?

**Answer**

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| **Generation 2 is the most abstract simulation because it has a text editor with an assembly editor.** |

2. Explain the purpose or function of the RAM and the CPU.

**Answer**

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| **RAM stores value so that the CPU can fetch them and then decrypt and execute them.** |

3. Describe in your own words the difference between the fetch and execute steps.

**Answer**

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| **Fetch means that the data is fetched from the RAM and then executed on the CPU.** |

4. Summarize the differences between assembly language and machine language programming.

**Answer**

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| **Assembly language puts the code into English and writing that we can easily understand. Machine language is just ones and zeros that is hard to read and can easily be messed up.** |