

Fetch-Execute Cycle

Introduction

The Fetch-Execute Cycle is the sequence of operations involved in carrying out an instruction.

The following activities will aid your understanding of this sequence.

Questions

Answer the following questions.

1. **Label** the following diagram to show the different parts of a machine instruction:

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2. **Name** the four registers involved in the FE-Cycle and explain the role each of them plays:

3. **Describe** and **explain** the FE-Cycle in your own words

Questions cont.

Answer the following questions.

4. What does [PC] represent in register transfer notation?

5. What does \leftarrow represent in register transfer notation?

6. Write the FE cycle in register transfer notation:

7. **Create** an animated powerpoint presentation to describe the execution of the following program:

100	LDA 105
101	ADD 106
102	STA 107
103	RTS
104	
105	64
106	32
107	