CS-FAST: Computational Thinking Pre-Workshop Activity

First, read the following paper from Jeannette M. Wing:

https://www.cs.cmu.edu/~15110-s13/Wing06-ct.pdf

Then, choose three of the five questions below to reflect upon and answer before our CS-FAST Coffee Time. You may also feel free to add any secondary reflections which do not align with these questions: these questions are just a starting point to kick-off your thoughts. Once done, submit your responses to these questions here: https://tinyurl.com/CS-FAST-Assignments. Feel free to use a 2nd page if needed.

NOTE: this paper is not an *easy* read. There are likely parts you don't understand and that's totally ok!

1. Does computational thinking describe how humans think, or how computers think? Or both? Explain your reasoning.

2. Consider the following quote from Gerald Jay Sussman (Structure and Interpretation of Computer Programs (SICP), Preface to the First Edition):

   > *We want to establish the idea that a computer language is not just a way of getting a computer to perform operations but rather that it is a novel formal medium for expressing ideas about methodology. Thus, programs must be written for people to read, and only incidentally for machines to execute.*

   In what ways does this reflect the philosophies of computational thinking?

3. Wing's paper mentions applications of computational thinking outside of computer science. Find an application in your life (not involving teaching) which requires computational thinking and justify why you think this process is a computational thinking process.

4. Connect computational thinking to something that you teach in the classroom.

5. What is computer science? (there is no right answer)

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