5. (100 points) Answer the following questions regarding data types in programming:

   a. In Java, the result of 5/2 is 2. As humans, we probably expect the result to be 2.5.
   Describe the logic that causes Java to arrive at an answer of 2.
   How is the number information being processed by the CPU, versus how we might process it as humans?

   b. In Snap, the result of 5/2 is in fact 2.5.
   This might seem counter-intuitive, but different languages can use different approaches and rules, especially relating to how they process information.
   Why does Snap resolve to 2.5, and not to 2 like Java does?

   c. Just to make sure you get the picture, here's another scenario for Java.
   The math 5.0/2 will be 2.5, as well as 5/(2*1.0).
   We know these are fundamentally the same - but Java clearly recognizes them differently.
   Why do these versions of the math resolve correctly to 2.5? What changed? Why did that affect the way Java processed the problem?

a) Java doesnt report the remainder unless specified by a decimal point or the classification of double rather than integer.

b) Snap uses different classification making up for the users skill.

c) Bc decimal point was added. The user specifies that they wants decimal places by adding the decimal point.