1. Do Hudak exercise 13.3, with the following simplifications and guidelines. Define a function

   \[ \text{clock} :: \text{Int} \to \text{Int} \to \text{Int} \to \text{Animation \ Graphic} \]

that takes an initial time specified as three integers (hours, minutes, seconds) and returns an Animation rendering your clock. Then, write a function \( \text{main: IO ()} \) that obtains the current time (using the functions available in the \text{Time} library — be sure to get the updated version with bug fix from the course web page) and calls \( \text{clock} \) with it.

Don’t worry about making your clock too pretty, just so long as it is recognizable as a (non-digital!) clock. In particular, don’t bother trying to label the face with numbers; this is surprisingly difficult to do given the framework Hudak has made available. You should try to have some kind of tick marks at the rim, however. Your clock “hands” can be very basic (e.g., just small circles). You’ll find it convenient to make the clock face have radius of about 1.0 or 2.0 units (in the \text{Region} coordinate system). You’ll need to recall some basic trigonometry, but the examples in the text should be enough of a reminder.

Finally, don’t be distressed if Hugs can’t run fast enough to keep your second hand moving smoothly.

2. Using the \text{fibs} function in Hudak Ch. 14.2 as a model, write a definition for the infinite list of factorials

   \[ \text{facts} = [1, 2, 6, 24, 120, 720, 5040, 40320, 362880, 3628800, ...] \]