CMPSC 132

Here’s a game that’s played with three pennies. H denotes the head of the penny; T represents the tail. The game begins with the pennies in this arrangement:

H T H

The goal of the game is to end up with this arrangement:

T H T

The rules are:

* You may flip the middle coin whenever you want to
* You may flip one of the end coins only if the other two coins are the same as each other

Draw the graph that represents the valid moves of this game where a vertex stores a valid combination of coins:

H T H

1. Is it a directed graph?
2. How many vertices?
3. How many edges?