Problem of the Week
Problem A
Gathering Treasure

Genevieve is making a video game where players need to trade gems in order to get to the next level. The gems in the game are emeralds, diamonds, and rubies. In the first level, players make three trades of their gems, as shown in the diagram, until they have at least 10 rubies.

(a) How many of each gem will a player have when they finish the first level?
(b) How many trades in total will a player have made when they finish this level?

Theme Computational Thinking