





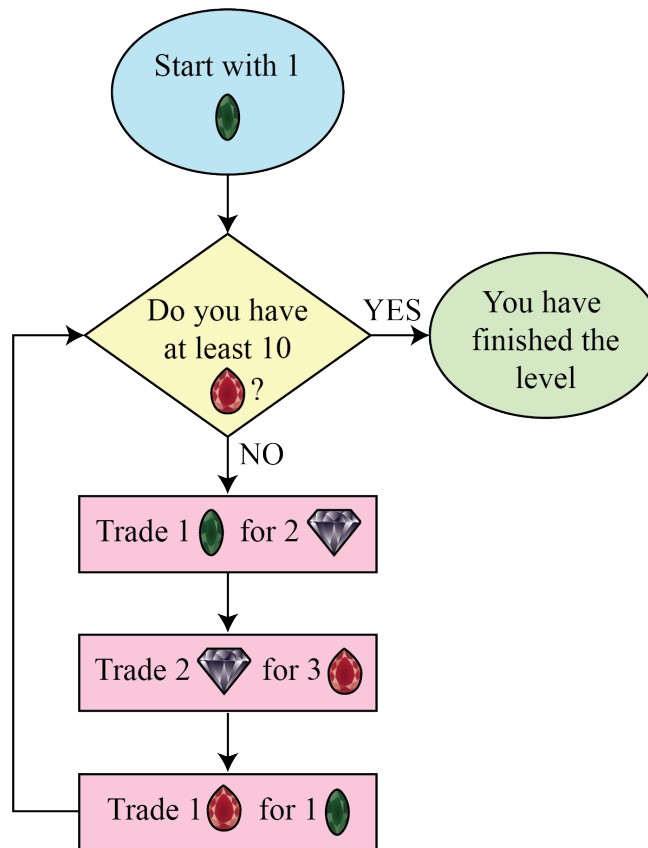


Problem of the Week

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?