* Divide the marbles into three groups of four marbles each.
* Weigh the first two sets of 4 marbles (4 marbles on each pan of the balance/weighing-scale)
* If equal:
  + 🡪The eight of these marbles are not-faulty.
  + From the remaining four take 2 on one pan and one on the other pan. Place a not-faulty marble from the not-faulty eight on the other pan (in which only one marble is there at present).Weigh.
  + If equal:
    - Compare the one (of the four) remaining with a non faulty one.
    - If heavier:
      * The marble is heavier than the rest and is faulty.
    - Else:
      * The marble is lighter than the rest and is faulty.
  + Else:
    - Note the positions of the balance ………………………
* Else:
  + 🡪The faulty is one among the first eight.
  + Take note of the marbles on the heavier and the lighter pan.
  + Remove 2 marbles from the 4 on the heavier pan.
  + Switch 2 from the lighter pan with one from the heavier pan and weigh.
  + If equal:
    - 🡪One of the two marbles that had been removed is faulty.
    - Compare(Weigh) one of them with a not-faulty one (any one from the four marbles that had been eliminated from the eight in the first step)
    - If equal:
      * The other is faulty.
    - else
      * This marble is faulty.
  + Else:
    - If heavier pan continues to remain down:
      * 🡪One of the un-switched 3 is faulty.
      * Take the two of the un-switched marbles of the lighter pan.
      * Put one each on the pans of the scale and weigh.
      * If equal:
        + The heavy marble (the un-switched marble from the heavier pan) is faulty.
      * Else:
        + The marble in the pan that moves up is lighter than the rest and is faulty.
    - Else:
      * 🡪 One of the switched 3 is faulty.
      * Take the two of the switched marbles of the lighter pan.
      * Put one each on the pans of the scale. Weigh.
      * If equal:
        + The heavy marble (the switched marble from the heavier pan) is faulty.
      * Else:
        + The marble in the pan that moves up is lighter than the rest and is faulty.