

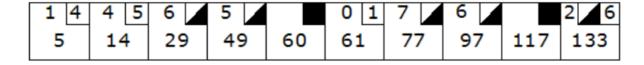
## **Bowling Game**

Please implement a program calculating the score of a single player in Bowling.

## **Game Rules**

- A bowling game consists of 10 frames.
- Each frame, the player has two tries to knock down 10 pins with a bowling ball.
- The score for the frame is the total of knocked down pins, plus bonuses for strikes and spared.
- A Spare is when a player knocks down all 10 pins in two tries.
  - The bonus for this frame is the number of pins knocked down by the next roll.
- A Strike is when the player knocks down all 10 pins on his first try.
  - The bonus for this frame is the number of pins knocked down by the next two rolls.
- In the 10<sup>th</sup> frame, a player is allowed to throw an extra ball if she/he scores a Spare or a Strike.
  - No more than three throws are allowed for the 10<sup>th</sup> frame.
  - No bonus scores are granted for Strikes and Spares in 10<sup>th</sup> frame.
  - If a player hits a Strike / Spare, 10 pins will be available again for the next throw within the 10<sup>th</sup> frame.

## **Example**



- 2<sup>nd</sup> Frame:
  - o Frame score is 9 (4+5)
  - o Total score is 14 (9 frame score + 5 total score of frame 1)
- 3<sup>rd</sup> Frame:
  - o Frame score is 10 (Spare)
  - Total score is 29 (10 frame score + 14 total score of frame 2 + 5 bonus for next roll)
- 5<sup>th</sup> Frame:
  - Frame score is 10 (Strike)
  - Total score is 60 (10 frame score + 49 total score of frame 4 + 1 bonus for the next two rolls)