IIT Madras
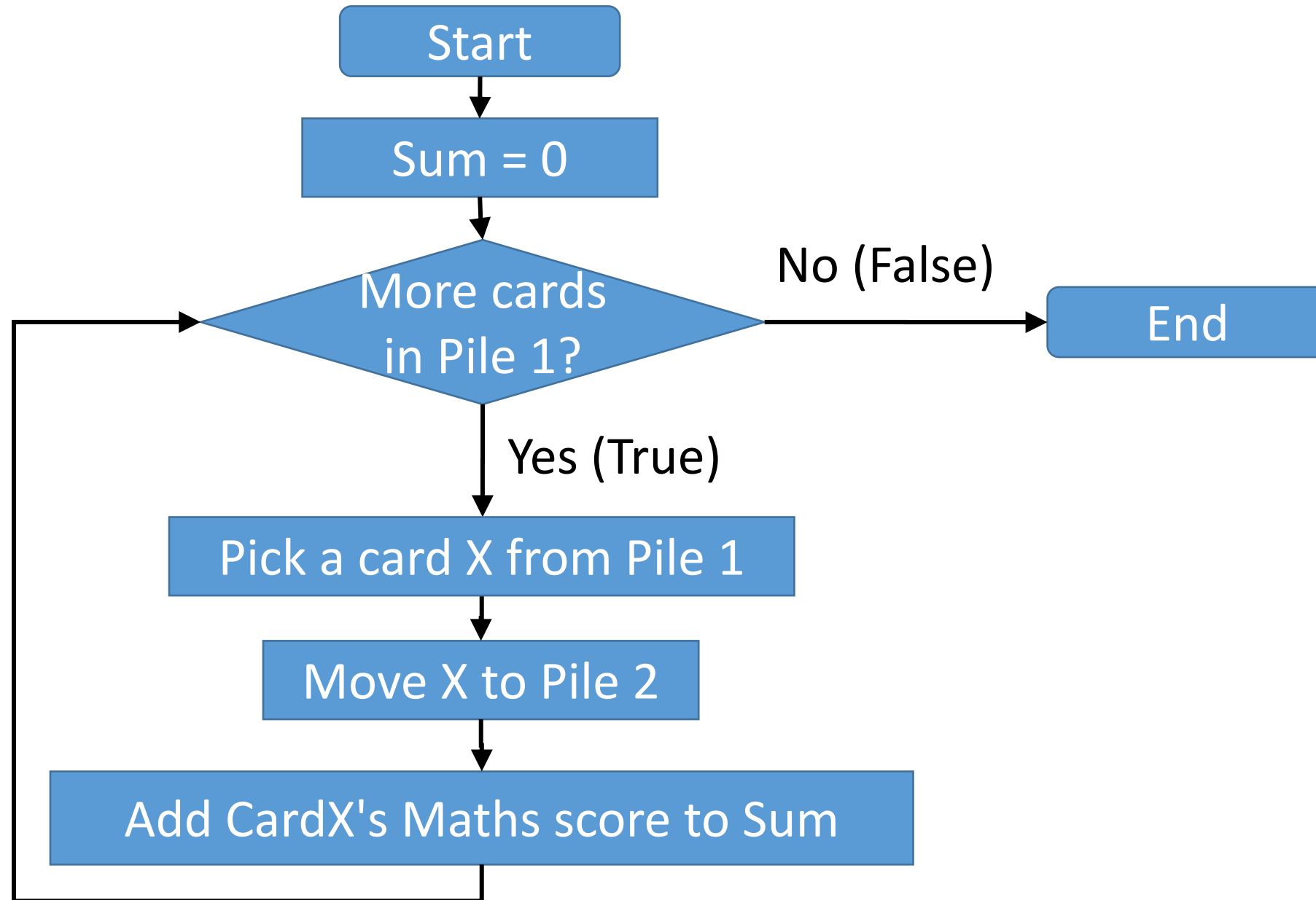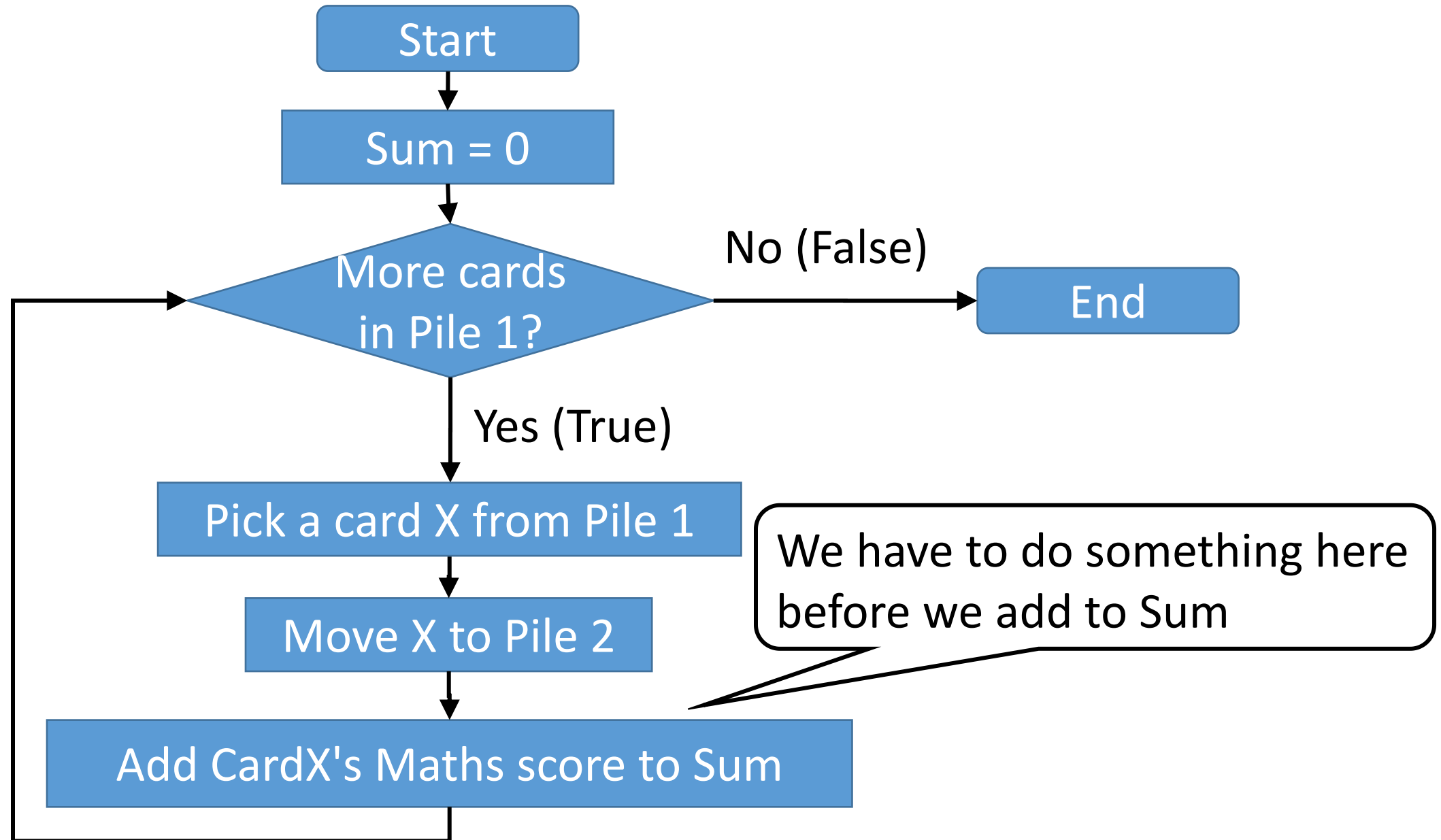
ONLINE DEGREE

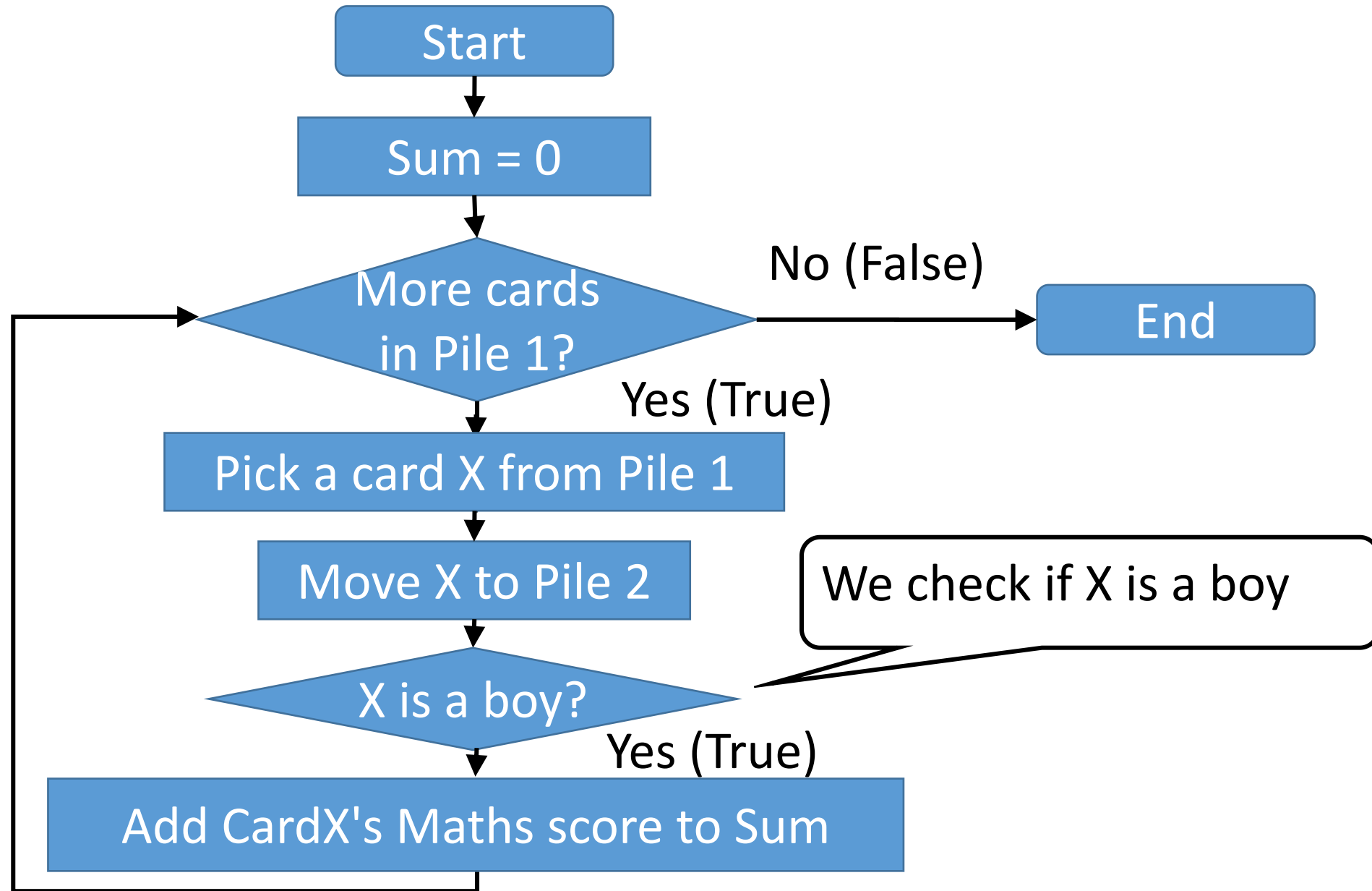# Flowchart for Sum with Filtering

How do we modify this to do sum of Boys Maths marks?

How do we modify this to do sum of Boys Maths marks?
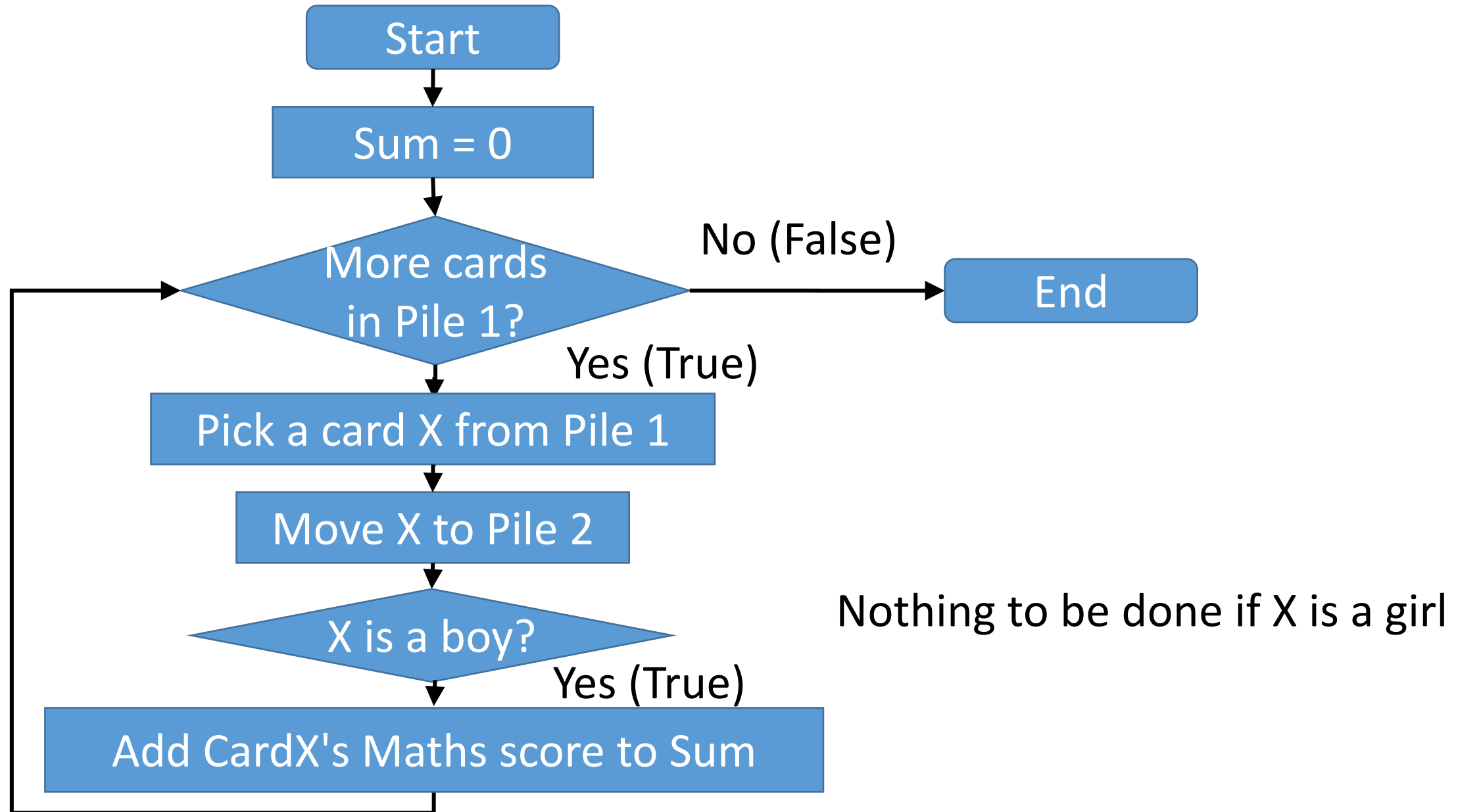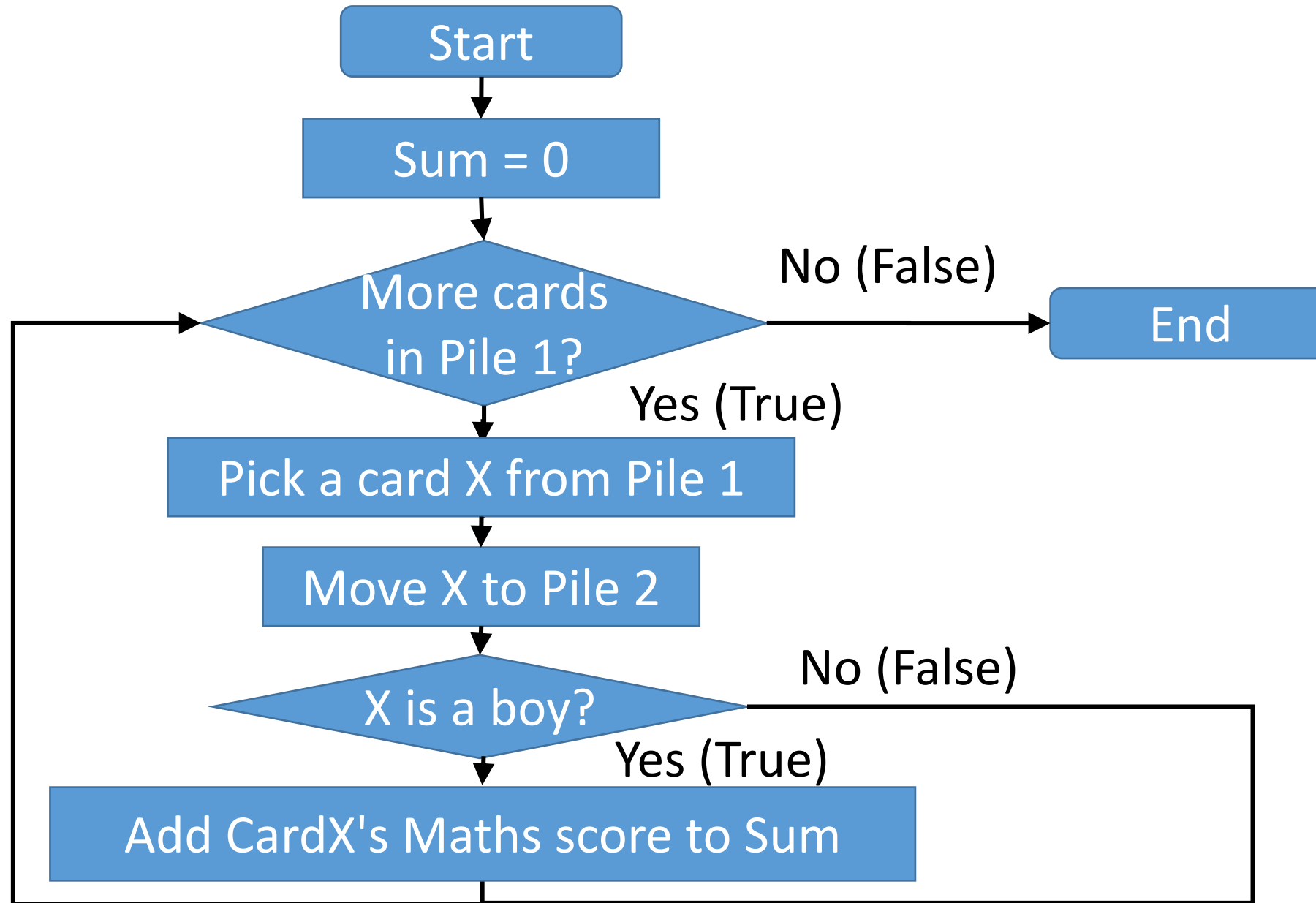
How do we modify this to do sum of Boys Maths marks?

How do we modify this to do sum of Boys Maths marks?

Start

↓

Sum = 0

↓

More cards in Pile 1? — No (False) → End

Yes (True)

↓

Pick a card X from Pile 1

↓

Move X to Pile 2

↓

X is a boy? — Yes (True)

↓

Add CardX's Maths score to Sum

Nothing to be done if X is a girl
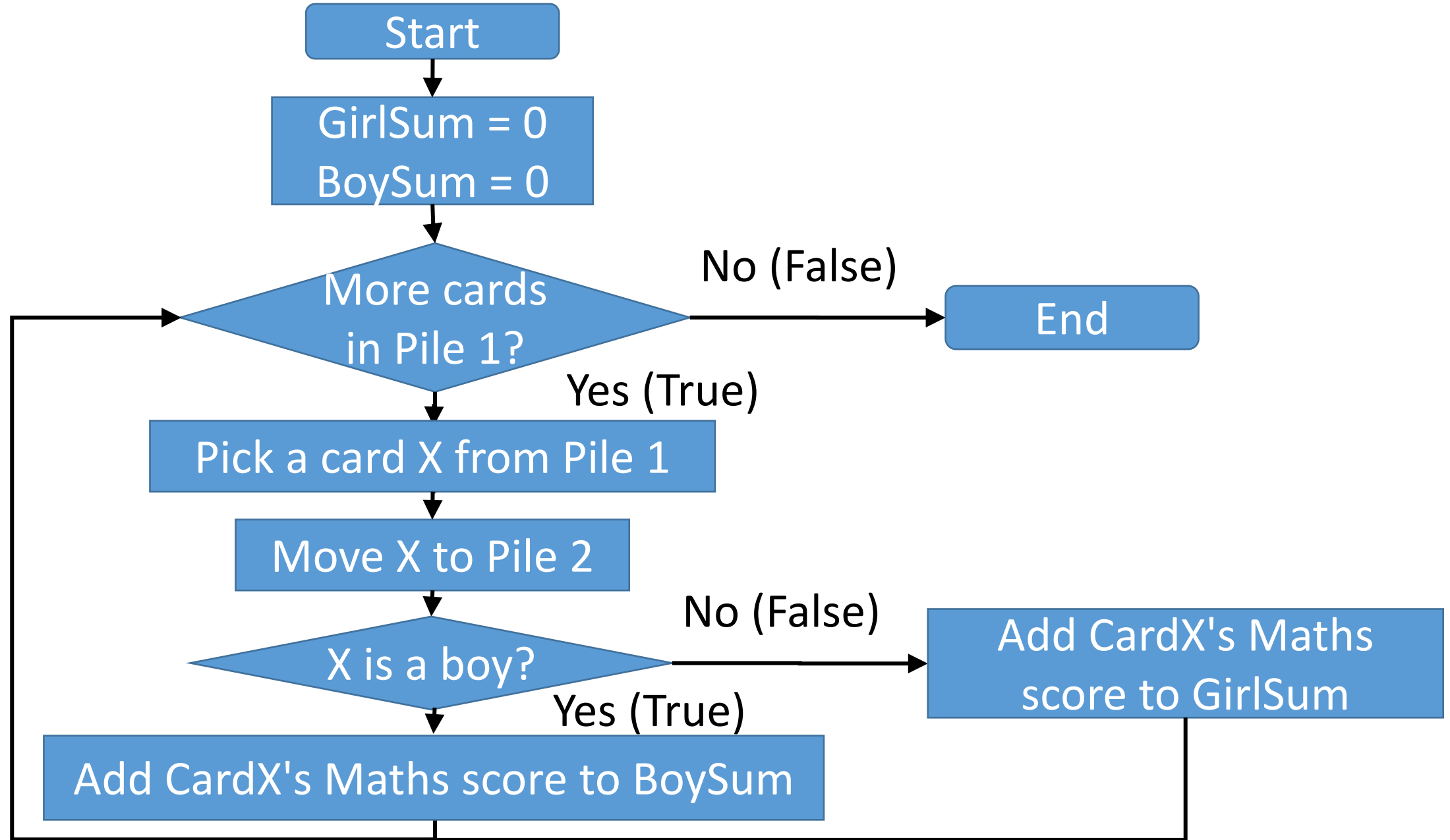
How do we modify this to do sum of Boys Maths marks?

Sum of both Boys and Girls Maths marks

```
                        Start
                          │
                          ▼
                    GirlSum = 0
                    BoySum = 0
                          │
                          ▼
              ┌─────────────────────┐   No (False)
   ┌────────▶ │  More cards           ├──────────────────▶  End
   │          │  in Pile 1?           │
   │          └─────────────────────┘
   │                      │ Yes (True)
   │                      ▼
   │          Pick a card X from Pile 1
   │                      │
   │                      ▼
   │              Move X to Pile 2
   │                      │
   │                      ▼
   │              ┌──────────────┐   No (False)   ┌─────────────────────┐
   │              │  X is a boy?  ├──────────────▶ │ Add CardX's Maths    │
   │              └──────────────┘                 │ score to GirlSum     │
   │                      │ Yes (True)             └─────────────────────┘
   │                      ▼                                   │
   │   Add CardX's Maths score to BoySum                      │
   │                      │                                   │
   └──────────────────────┴───────────────────────────────────┘
```
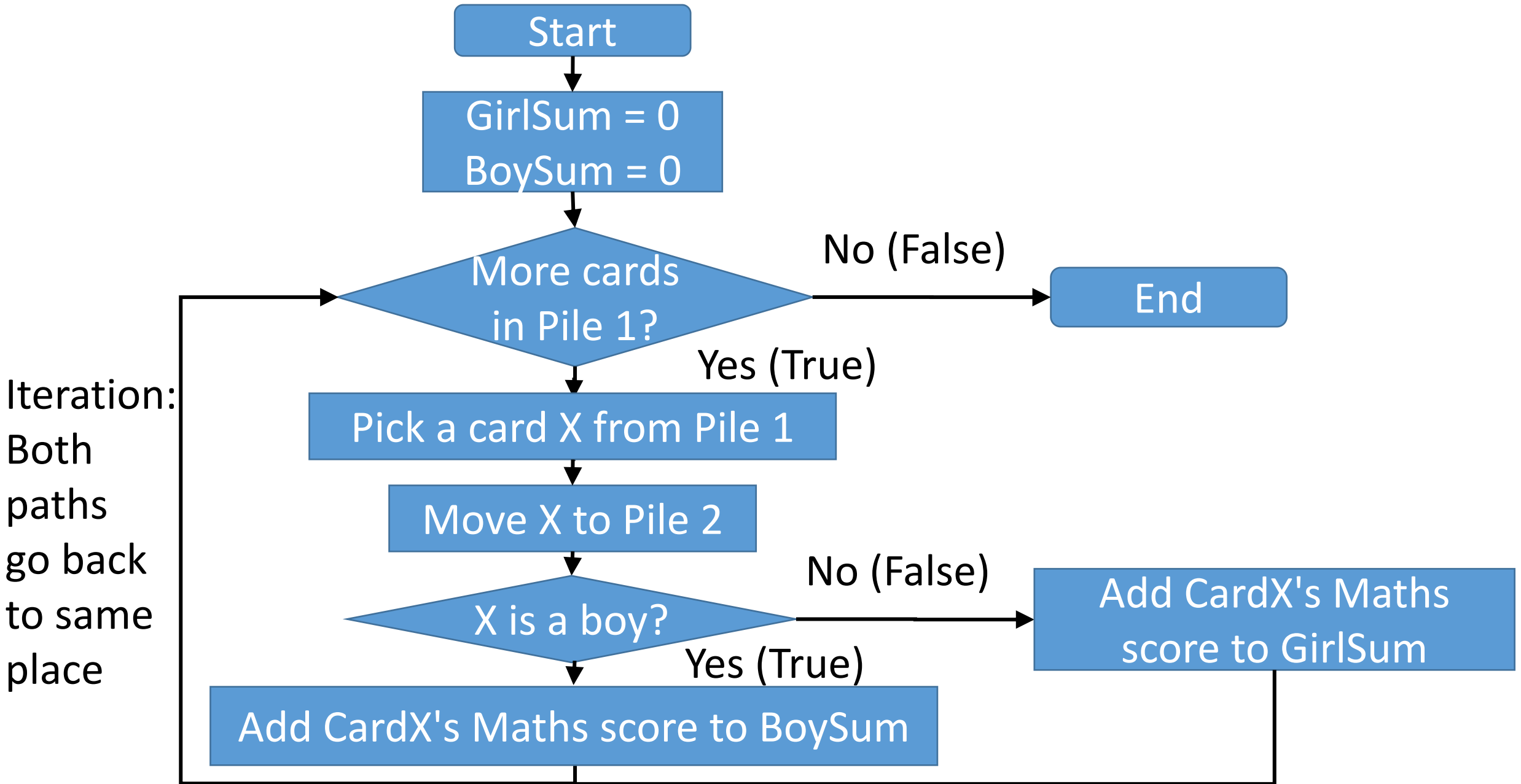
Sum of both Boys and Girls Maths marks

Summary: Sum with filtering