Ex 5.1

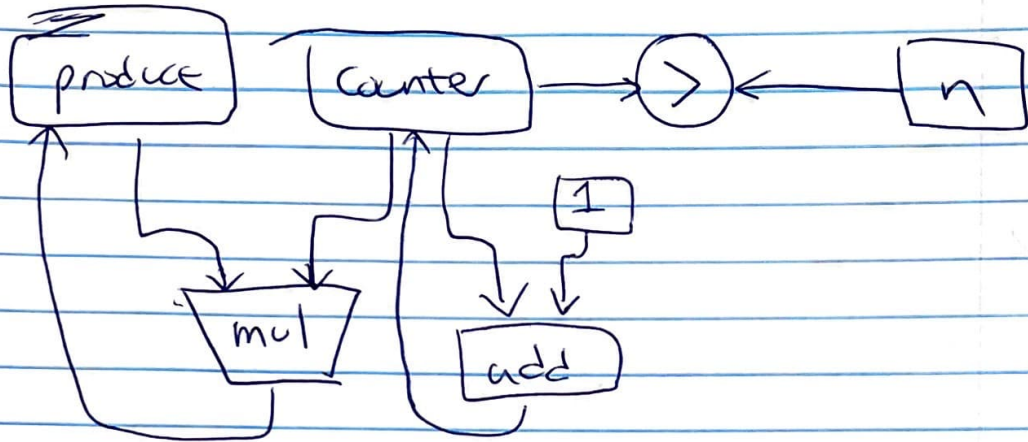## Data-path diagram:

Controller