Genetic Algorithm

generate initial population

▼

test the population for quality

select individual to reproduce

produce new variations of individuals

replace old individuals with new one – new generation

while not satisfied

test_population(model,p)

for i=1 to n

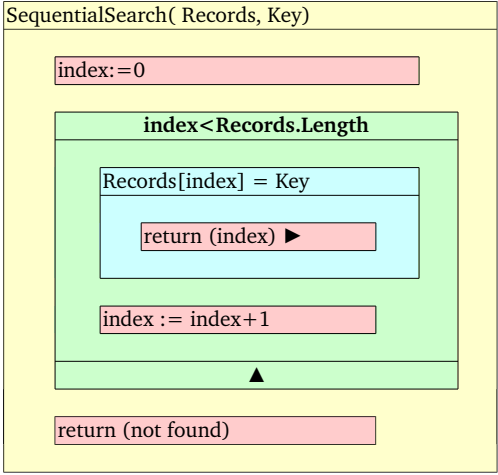
$$M(p_i) = simulate(model, parameters = p_i)$$

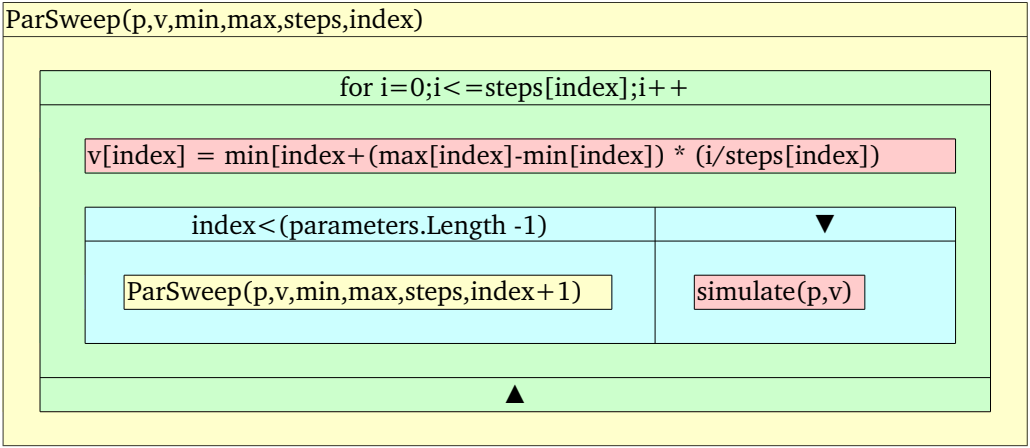
$$q_i = \sum_{j=1}^{m} (M(t_j, p_i) - data(t_j))^2$$

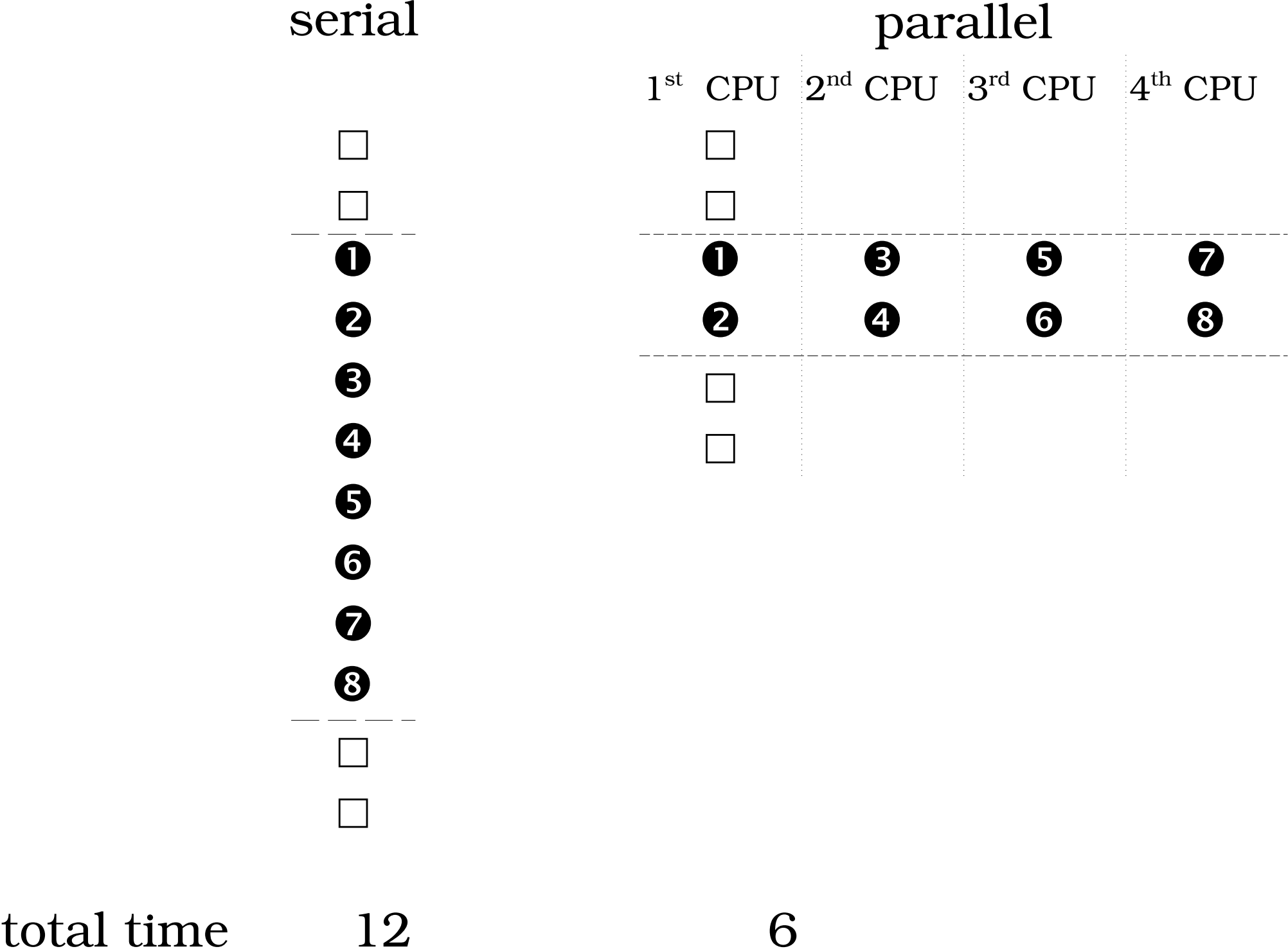
▲

return(q)

```
int function SequentialSearch(Array Records, int Key)
{



        for (int index=0;i<Records.Length;i++)
        {
                if (Records[index]=Key)
                {
                        return (index)
                }




        }

        return(-1)
}
```




ParSweep(p,v,min,max,steps,index)
for i=0;i<=steps[index];i++
v[index] = min[index+(max[index]-min[index]) * (i/steps[index])
index<(parameters.Length -1)
ParSweep(p,v,min,max,steps,index+1)
simulate(p,v)


serial
parallel
1st CPU
2nd CPU
3rd CPU
4th CPU
1
2
3
4
5
6
7
8
1
2
3
4
5
6
7
8
total time
12
6