Homework 2

Problem 2.1

Solution:

The code can be found in file coins.c. Times:

P	N	Global lock (ms)	Iteration lock (ms)	Coin lock (ms)
100	10000	501579.00	3503173.00	14947049.00
10	10	1599.00	1611.00	4082.00
100	10	9928.00	12109.00	35149.00
10	100	2860.00	5260.00	26545.00
100	100	26929.00	82491.00	159814.00
1000	100	150999.00	386740.00	1577599.00ms
1000	1000	503501.00	3582887.00	18039680.00

Number of people plays bigger role than number of flips. The time is wasted on change of locks. More times we have to go through lock/unlock procedure, more time it takes. We observe that the first strategy is the fastest (least enters into critical zone, only P). Then goes the second that spends less time in section but enters it P*N times. And last goes third method, which requires P*N*20 enterings into critical zones.