Assumptions:
2 gophers
One pile of books
One incinerator
One gopher is present at start and other is at the end(near incinerator)

S No.	Gopher	Books	Task	Remaining books	End time	Pile next to incinerator	Total time
1	1	50	G1 loads 5 books in the cart	45	10 secs		10
2	1 2	45	G1 starts moving from pile to the incinerator G2 starts moving from incinerator to pile	45	30 secs		40
3	1 2	45	G1 will unload the cart and burn 3 books at a time G2 will load at the same time when G1 was unloading the cart.	40	10 secs	2	50
4	2 1	40	G2 starts moving towards the incinerator G1 goes to books pile at the same time	40	30 secs		80
5	2 1	40	G2 will unload the cart and burn 3 books at a time G1 will load at the same time when G2 was unloading the cart	35	10 secs	2	90
6	1 2	35	G1 starts moving towards the incinerator G2 goes to books pile at the same time	35	30 secs		120
7	2	35	G2 will load the cart	30	10 secs	2	130

	1		G1 will unload the cart				
8	2 1	30	G2 will move towards the incinerator G1 will move toward the pile	30	30 secs		160
10	2 1	30	G2 will unload the cart G1 will load the cart	25	10 secs	2	170
11	1 2	25	G1 moves towards the incinerator G2 moves towards the book pile	25	30 secs		200
12	1 2	25	G2 will load the cart G1 will unload the cart	20	10 secs`	2	210
13	1 2	20	G2 will move towards the incinerator G1 will move toward the pile	20	30 secs		240
14	2 1	20	G2 will unload the cart G1 will load the cart	15	10 secs	2	250
15	1 2	15	G1 moves towards the incinerator G2 moves towards the book pile	15	30 secs		280
16	1 2	15	G2 will load the cart G1 will unload the cart	10	10 secs	2	290
17	1 2	10	G2 will move towards the incinerator G1 will move toward the pile	10	30 secs		320

18	2 1	10	G2 will unload the cart G1 will load the cart	5	10 secs	2	330
19	1 2	5	G1 moves towards the incinerator G2 moves towards the book pile	5	30 secs		360
20	2 1	5	G2 loads the cart G1 unloads the cart	0	10 secs	2	370
21	2	0	G2 moves towards the cart	0	30 secs		400
22	2	0	G2 unloads the cart	0	10 secs	2	410

Now we have 20 books near the incinerator.
We will burn 3 books at a time
3*6=18 books
Time taken=20*6=120 secs
Books left=2
Time taken=20secs
Total=140 secs

Total time taken for burning 50 books=410+140=550 secs

Case 2: Divide books into two piles

Time taken will be half= 550/2
=275