

NAME:

Intuitive assignments vs. the Assignment Model:

I In a simplified world, there are five countries who are going to specialize in producing five products to trade with each other. Country A is "underdeveloped" and Country E is "High Tech." Eve Jones, a Business Grad has published a book speculating that people will act as if guided by an "invisible hand" to minimize production costs (labor) and maximize capacity to produce the greatest "wealth of nations".

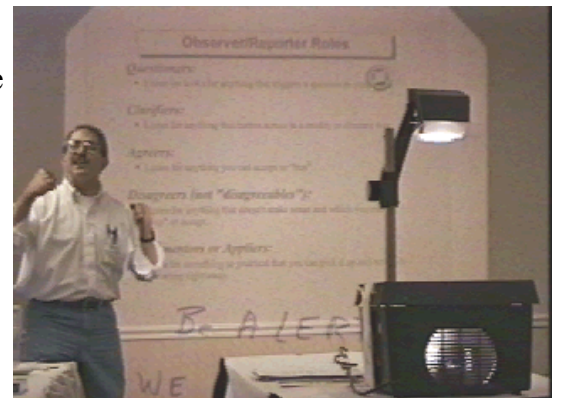
A) Suppose the United Nations World Wealth Commission were assigning work based on an intuitive, least expensive first, basis. What would the resulting overall cost be?

Billions of Man Hours to Produce
The world's requirements.

	A	B	C	D	E
Bread	9	8	5	8	3
Butter	11	5	6	7	4
Guns	10	8	8	6	5
Cars	12	9	11	11	8
VCR's	25	14	16	14	12

B) Use the assignment method to determine which country would produce which good if the Invisible Hand theory were correct. Attach a printout of the EXCEL file. What will the total manhour requirement be?

C) Why does the intuitive method usually give a more expensive overall result?



"Be Alert! We need more lerts."

Does Due date scheduling rule always give the minimum average lateness?

Compare the "random" First-come-first-served sequence in the first table with a due date rule on the second table.

First Come First Served rule:

Job	Process time	Due Date	cumulative flow time	Days late
A	2	15		
B	8	10		
C	4	12		
D	10	14		
E	5	18		
F	12	16		
total	41			
				<u>average</u>
Average	time at center			
	Days late			
	jobs at center			

Closest Due Date rule:

Job	Process time	Due Date	cumulative flow time	Days late
total	41			
				<u>average</u>
Average	time at center			
	Days late			
	jobs at center			

A) Calculate average days late, time to completion (time at center), and average jobs at the work center.

B) What happened to lateness as a result of scheduling by due date? How could you explain this result?

C) If the customer usually provides estimates of due dates and cost of lateness would he have incentives to give correct information? Considering this, is the due date rule likely to be based on good information?

D) What could we do for rush processing to bring processor and the customer incentives in line?