

ECON 463/563

OnFront Efficiency Exercise

November 3, 2004

You are given the following data set, which you are asked to use in the problems below using OnFront. Please include printouts of your results.

Plot the output sets from the data below (hint—there are two $p(2)$ and $P(3)$).

k	y_1	y_2	x
A	3	3	2
B	2	1	2
C	3	0	3
D	1	2	2
E	4	3	3
F	3	2	2

1. First calculate the output based scale efficiency for each firm in your sample. Summarize your results in words here. For scale inefficient observations determine whether they are inefficient due to cooperation at IRS or DRS (Hint—you need to calculate $F_o(x, y|N, S)$).
2. Find the overall output efficiency and decomposition for each observation in your sample assuming that the output prices are $p_1 = 1, p_2 = 2$. What is the maximum revenue achievable in your sample with these prices?

3. Plot your results for A_o , F_o and O_o (on the same graph). Describe them here in words.

4. Now explain how the inefficient firms could improve their performance based on the identification of the reference firms. (You need to find optimal z -values for the $F_o(x, y|C, S)$ problem).