

Name:

Model-based Decision Support

Exam 4 (home assignment) Enrolment number:

April 21, 2016

The Management of the chain of stores Doberhams has taken the following 3 Outputs and 2 Inputs as crucial for efficiency measuring of their branches:

(O) Sales (unit sold articles)

(I) Employees (full time equivalent)

(O) Total Revenue (unit £)

(I) Sales Area (unit 100 m²)

(O) Profits (unit £)

Data collection yields the following operating figures:

Store	(I) Employee	(I) Area	(O) Sales	(O) Revenue	(O) Profits
Doberhams A	14	20	700	6000	700
Doberhams B	18	15	1000	12000	1700
Doberhams C	20	2X	800	11000	1900
Doberhams D	25	1Y	1200	23000	2600
Doberhams E	12	9	900	18000	4000
Doberhams F	16	2Z	1200	12000	3200
Doberhams G	13	32	1400	14000	3100

For Z use the last digit of your student enrolment number, Y the last but one digit, and X the last but two (If X=4, then 2X is 24).

Use MS Excel and DEA to compute CCR-efficiency of these branches of Doberhams (input-oriented). For one of the necessary seven optimization runs, copy your spreadsheet to a piece of paper. Additionally, describe **verbally** (i.e. in words) which branch operates efficiently and which not. Your submission should be handed in at next class on April 21st.

(In case that you don't have access to MS Excel contact me, and I provide you a working place at our computer lab).