

Name:

## Model-based Decision Support

Exam 7 (homework)

Enrolment number:

May 28, 2015

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 m<sup>2</sup>)

(O) Profits (unit £)

Data collection yields the following operating figures:

Store	(I) Employee	(I) Area	(O) Sales	(O) Revenue	(O) Profits
Doberhams A	1X	20	700	6000	700
Doberhams B	1Y	15	1000	12000	1700
Doberhams C	20	30	800	11000	1900
Doberhams D	25	15	1200	23000	2600
Doberhams E	1Z	9	900	18000	4000
Doberhams F	16	24	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.

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** which branch operates efficiently and which not. Your submission should be handed in at the next class on May 28<sup>th</sup>.

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