15. Januar 2007

opg. 1

Demand $p = -\frac{1}{2000}x + 200$

Turnover $px = -\frac{1}{2000}x^2 + 200x$

$MR = -\frac{1}{1000} + 200$

$FC = 1{,}000{,}000$

$VC = \frac{1}{18000}x^2 + 20x$

$TC = \frac{1}{18000}x^2 + 20x + 1{,}000{,}000$

$MC = \frac{1}{9000}x + 20$

$MR = MC$

$-\frac{1}{1000} + 200 = \frac{1}{9000}x + 20$

$180 = \frac{1}{9000}x + \frac{9}{9000}x$

$180 = \frac{10}{9000}x$

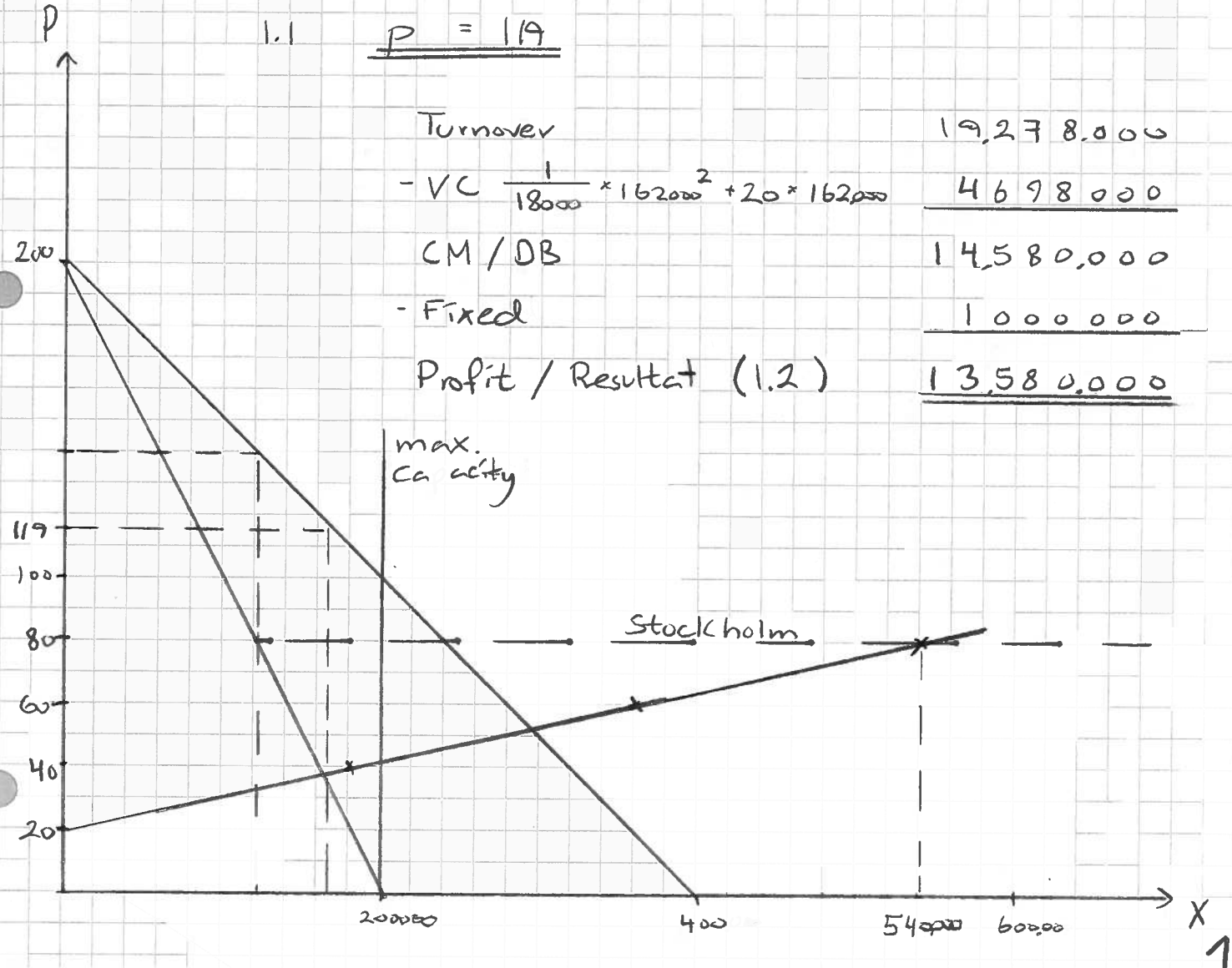
1.1 $\underline{\underline{162{,}000 = x}}$

$x = 162000$ indsættes i prisfunktionen og man får

$p = -\frac{1}{2000} \cdot 162000 + 200$

1.1 $\underline{\underline{p = 119}}$

Turnover	19,278,000
$-VC\ \frac{1}{18000} \cdot 162000^2 + 20 \cdot 162000$	4698000
CM / DB	14,580,000
- Fixed	1000000
Profit / Resultat (1.2)	13,580,000



1.3 $MR = 80$

$-\frac{1}{1000}X + 200 = 80$

$120 = \frac{1}{1000}X$

$120.000 = X$

$P = -\frac{1}{2000} \times 120.000 + 200$

$P = 140$

Total mængde 200.000. Mængde til Stockholm

$200.000 - 120.000 = 80.000$ á 80 Kr. pr. stk.

Årlige Resultat / Profit

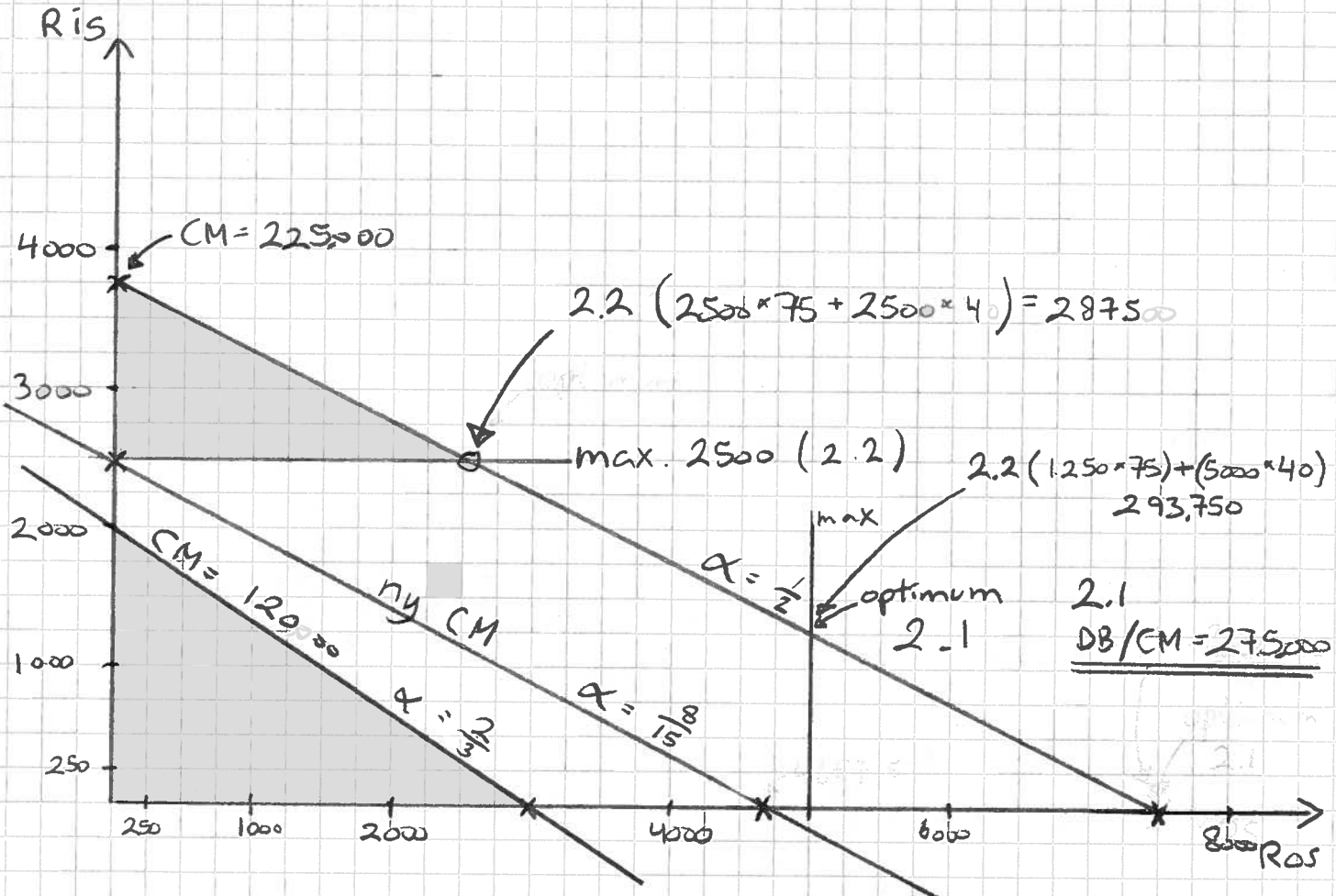
Turnover	120.000×140 (Finland)	16.800.000
Turnover	80.000×80 (Stockholm)	6400.000
- VC	$\frac{1}{18000} \cdot 200000^2 + 20 \cdot 200000 =$	6222222
CM / DB		16977778
- Fixed / Faste		1000000
Profit / overskud		15.977.778

1.4 Ekstra omk. ved salg på det Isvenske marked

opg. 2

	Ris	Ros	Kap.	max Ris	max Ros	α	Funktion
maskine	0,2	0,1	750	3750	7500	$-\frac{1}{2}$	$Ris = -\frac{1}{2}Ros + 375$
max. stk	6000	5000					
Salgspris	160	105					
-VC	100	65					
DB/CM	60	40					
Random CM	120.000	120.000					
	2000 stk.	3000 stk					

$\alpha = \frac{2000}{3000} = \frac{2}{3} = \frac{40}{60} = \frac{CM\ Ros}{CM\ Ris}$



2.1 5000 stk Ros og 1250 stk Ris, CM/DB = 275000

2.2 ny DB α $\frac{40}{75}$ (175-100) $= \frac{8}{15}$ Random CM-line $\Rightarrow$

Ris = 2500 * 75 = 187500 / 40 = 4687,5 stk Ros

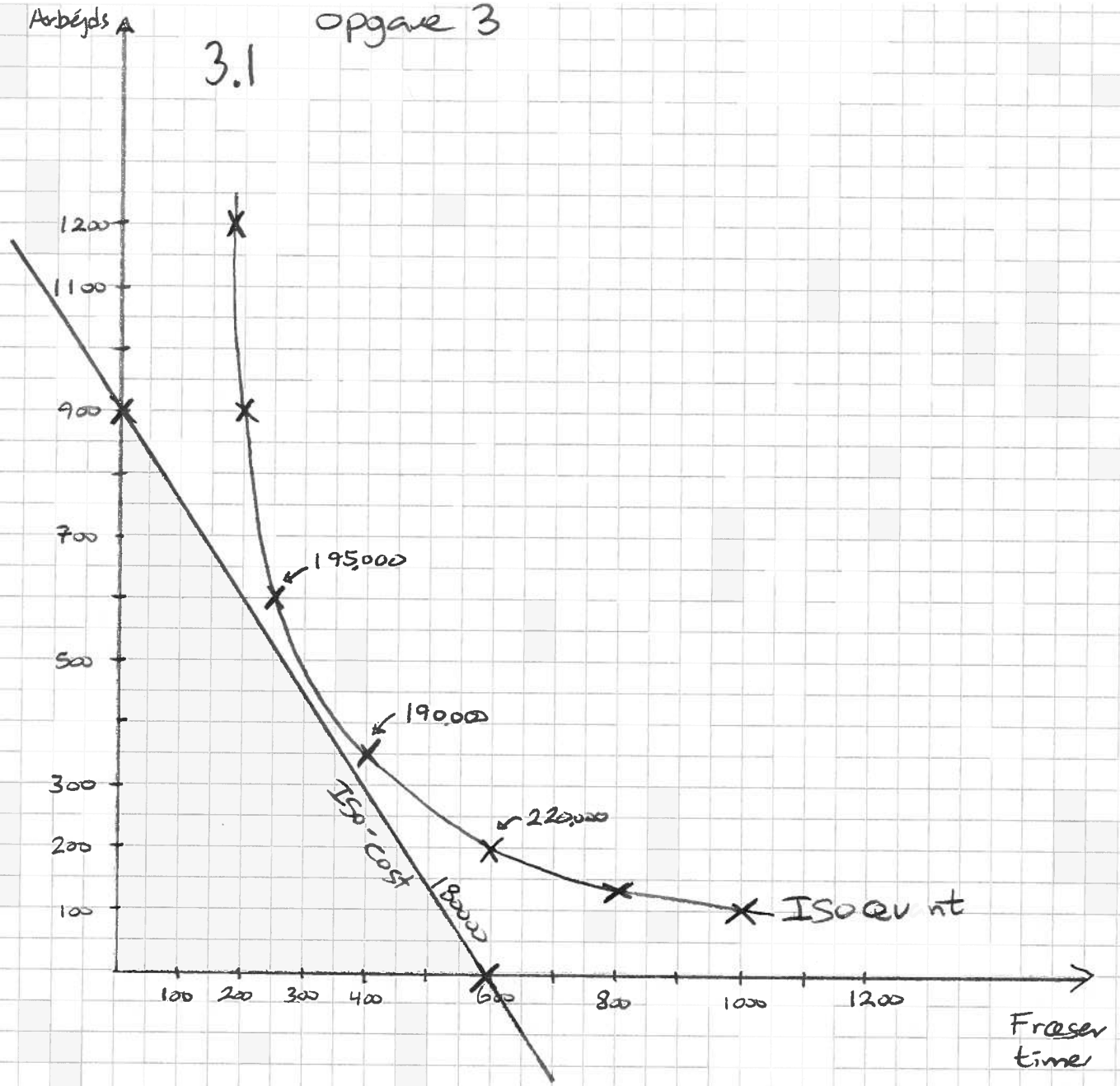
Ordren skal ikke accepteres / Ordren skal accepteres.

2.3 $\frac{1}{2} = \frac{40}{x} \Rightarrow x = 80 + 100 = 180$ i mindste salgspris

2.4 Langsigtede Kunderelationer, Risiko

opgave 3

3.1



Random ISO-cost 600 × 300 = 180.000 / 200 = 900

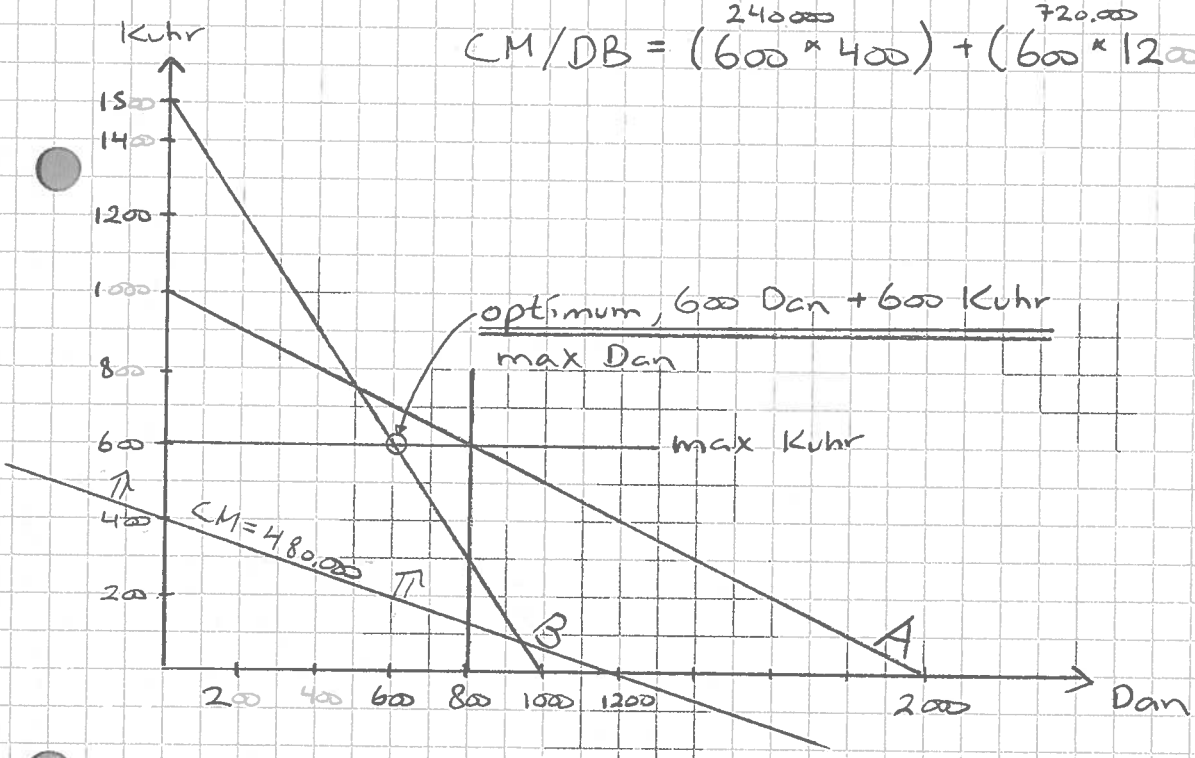
3.1 Vi bør anvende 400 fræsertimer og 350 arbejdskraft timer, samlet udgift 190.000 kr.

opg. 4

	Dan	Kuhr	Kap	max Dan	max Kuhr	α	Function
A	1	2	2000	2000	1000	$\frac{1000}{2000} = -\frac{1}{2}$	$K = -\frac{1}{2}D + 1000$
B	3	2	3000	1000	1500	$\frac{1500}{1000} = -1,5$	$K = -1,5D + 1500$
4.3 "ny"	3	2	3006	1002	1503	$\frac{1503}{1002} = -1,5$	$K = -1,5D + 1503$
CM/DB	400	1200					
CM_{Random}	1200 stk 480.000	400 stk 480.000					

$$\alpha = \frac{400}{1200} = \frac{DB\ Dan}{DB\ Kuhr}$$

$$CM/DB = (\overset{240.000}{600 * 400}) + (\overset{720.000}{600 * 1200}) = \underline{960.000}$$



4.3

$$-1,5D + 1503 = 600$$

$$903 = 1,5D$$

$$602 = D$$

Nyt DB $(602 * 400) + (600 * 1200) = 960800$

Ændring i DB = 800 / 6 timer = $\underline{133,\overline{33}}$ Mer-DB pr. time

4.4

$$\frac{X}{1200} = 1,5 \Rightarrow X = 1800$$

$$\frac{X}{1200} = 0 \Rightarrow X = 0$$

DB på Dan kan variere fra 0 til 1800 uden at optimum ændres.