

rods r and pillars p

drilling $0.5r + 1.5p \leq 105$

grinding $r + p \leq 90$

polishing $r + 0.5p \leq 70$

$r \leq 60$

$p \leq 70$

shading out



1

Vertex	Co-ordinate	Profit ($300r + 600p$)
A	(0,70)	42000
B	(30,60)	45000
C	(50,40)	39000
D	(60,20)	30000
E	(60,0)	18000
F	(0,0)	0

Maximum profit is \$45000, 30 rods and 60 pillars

2

Changing drilling and grinding

Drilling plus 5 $0.5r + 1.5p \leq 110$

grinding plus 5 $r + p \leq 95$

3

polishing the same $r + 0.5p \leq 70$