

EJERCICIO 1:

a)

$$Pe = 90$$

$$Qe = 15500$$

c)

$$CV = 0,05Q^3 - 1,5Q^2 + 45Q$$

$$CFMe = 200/Q$$

$$CVMe = 0,05Q^2 - 1,5Q + 45$$

$$IMe = IT/Q$$

$$CMg = \Delta CT / \Delta Q$$

$$IT = P \times Q$$

Q	CF	CV	CT	CFMe	CVme	CTme	Cmg	IMe	Img	IT	BT
0	200	0	200	-	-	-		0	-	0	-200
5	200	193,75	393,75	40	38,75	78,75	33,75	90	90	450	56,25
10	200	350	550	20	35	55	30	90	90	900	350
15	200	506,25	706,25	13,33	33,75	47,08	33,75	90	90	1350	643,75
20	200	700	900	10	35	45	45	90	90	1800	900
25	200	968,75	1168,75	8	38,75	46,75	63,75	90	90	2250	1081,25
30	200	1350	1550	6,66	45	51,66	90	90	90	2700	1150
35	200	1881,25	2081,25	5,714	53,75	59,46	123,75	90	90	3150	1068,75

d) Q que le genera el mayor beneficio

e)

$$CMg = P$$

$$0,05(3)Q^2 - 1,5(2)Q + 45 = 90$$

$$0,15Q^2 - 3Q - 45 = 0$$

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$$Q^* = 30$$

f) **Punto de cierre** $P = CVMe \text{ min} \Rightarrow Cmg = CVme$

$$Cvme = 0,05Q^2 - 1,5Q + 45$$

Derivando:

$$0,05(2)Q - 1,5 = 0$$

$$Q = 15$$