

week 1.

(1	K	L	Q	MP _L	MP _K	MP _L
20	0	0	0	0	0	0.3
20	5	20	43	4.3	21.5	16.5
20	15	87	2.8	2.8	2.8	10.45
20	20	69	3.35	3.35	3.35	10.35
20	25	15	3	3	2.75	

$$MP_L = \frac{dQ}{dL} = 3L^2 + 18L + 12$$

$$\Rightarrow 3L^2 + 18L = 0$$

$$\Rightarrow 3L = 0 \Rightarrow L = 0$$

$$\Rightarrow 18L = 0 \Rightarrow L = 0$$

$$MP_L = 0, MP_K = 0$$

$$\Rightarrow -3L + 18L + 12 = 0$$

$$\Rightarrow (L - 7)(3L - 3) = 0$$

$$\Rightarrow L = 7 \text{ or } L = 1 \text{ (not a solution)}$$

$$\Rightarrow L = 7 \text{ or } L = 1$$

$$\Rightarrow -3L + 18L + 12 = 0 \Rightarrow L = 0$$

$$\Rightarrow 9L = 22 \Rightarrow L = 2.44 \text{ or } 0$$

$$\Rightarrow (22 - 9)L = 0 \Rightarrow L = 0 \text{ or } L = 2.44$$

$$MP_L = \frac{dQ}{dL} = 6.15$$

$$MP_K = \frac{dQ}{dK} = 5.15$$

$$Q = 0 \text{ or } Q = 12.8 \text{ or } Q = 12.8$$

$$Q = 0 \text{ or } Q = 12.8 \text{ or } Q = 12.8$$