1.

MP

$MRTS = \frac{MP_L}{MP_K}$

規模報酬

產量彈性 $(\varepsilon_L = \frac{MP_L}{AP_L})$

生產力彈性 $(\varepsilon_L + \varepsilon_K)$

替代彈性 $(\sigma = \frac{d \ln \frac{K}{L}}{d \ln MRTS})$

	$q = 5LK$	$q = 2L + 3K$	$q = Min\{L, K\}$	$q = (0.2L^{-\frac{1}{2}} + 0.8K^{-\frac{1}{2}})^{-2}$
	$MP_L = 5K$	$MP_L = 2$	×	$MP_L = 0.2L^{-\frac{3}{2}}(0.2L^{-\frac{1}{2}} + 0.8K^{-\frac{1}{2}})^{-3}$
	$MP_K = 5L$	$MP_K = 3$		$MP_K = 0.8K^{-\frac{3}{2}}(0.2L^{-\frac{1}{2}} + 0.8K^{-\frac{1}{2}})^{-3}$
	$\frac{K}{L}$	$\frac{2}{3}$	$1, 0, \infty$	$\frac{1}{4}(\frac{K}{L})^{-1.5}$
	IRS	CRS	CRS	CRS
	$\varepsilon_L = \varepsilon_K = 1$	$\varepsilon_L = \frac{2L}{2L+3K}$ $\varepsilon_K = \frac{3K}{2L+3K}$	×	$\varepsilon_L = 0.2L^{-\frac{1}{2}}(0.2L^{-\frac{1}{2}} + 0.8K^{-\frac{1}{2}})^{-1}$
				$\varepsilon_K = 0.8K^{-\frac{1}{2}}(0.2L^{-\frac{1}{2}} + 0.8K^{-\frac{1}{2}})^{-1}$
	2	1	1	1
	1	∞	0	$\frac{2}{3}$
	$AP_L = 5K$	$AP_L = \frac{2L+3K}{L}$		$AP_L = \frac{(0.2L^{-\frac{1}{2}} + 0.8K^{-\frac{1}{2}})^{-2}}{L}$
	$AP_K = 5L$	$AP_K = \frac{2L+3K}{K}$		$AP_K = \frac{(0.2L^{-\frac{1}{2}} + 0.8K^{-\frac{1}{2}})^{-2}}{K}$

2. $Q = 3K + 2L$

(1) $\varepsilon_L = \frac{2L}{3K+2L}$

$\varepsilon_K = \frac{3K}{3K+2L}$

$\varepsilon^{\emptyset} = \varepsilon_L + \varepsilon_K = 1 \Rightarrow CRS.$

(2) $MP_L = 2$

$MP_K = 3$

為固定

(3) $MRTS = \frac{MP_L}{MP_K} = \frac{2}{3}$

為固定.