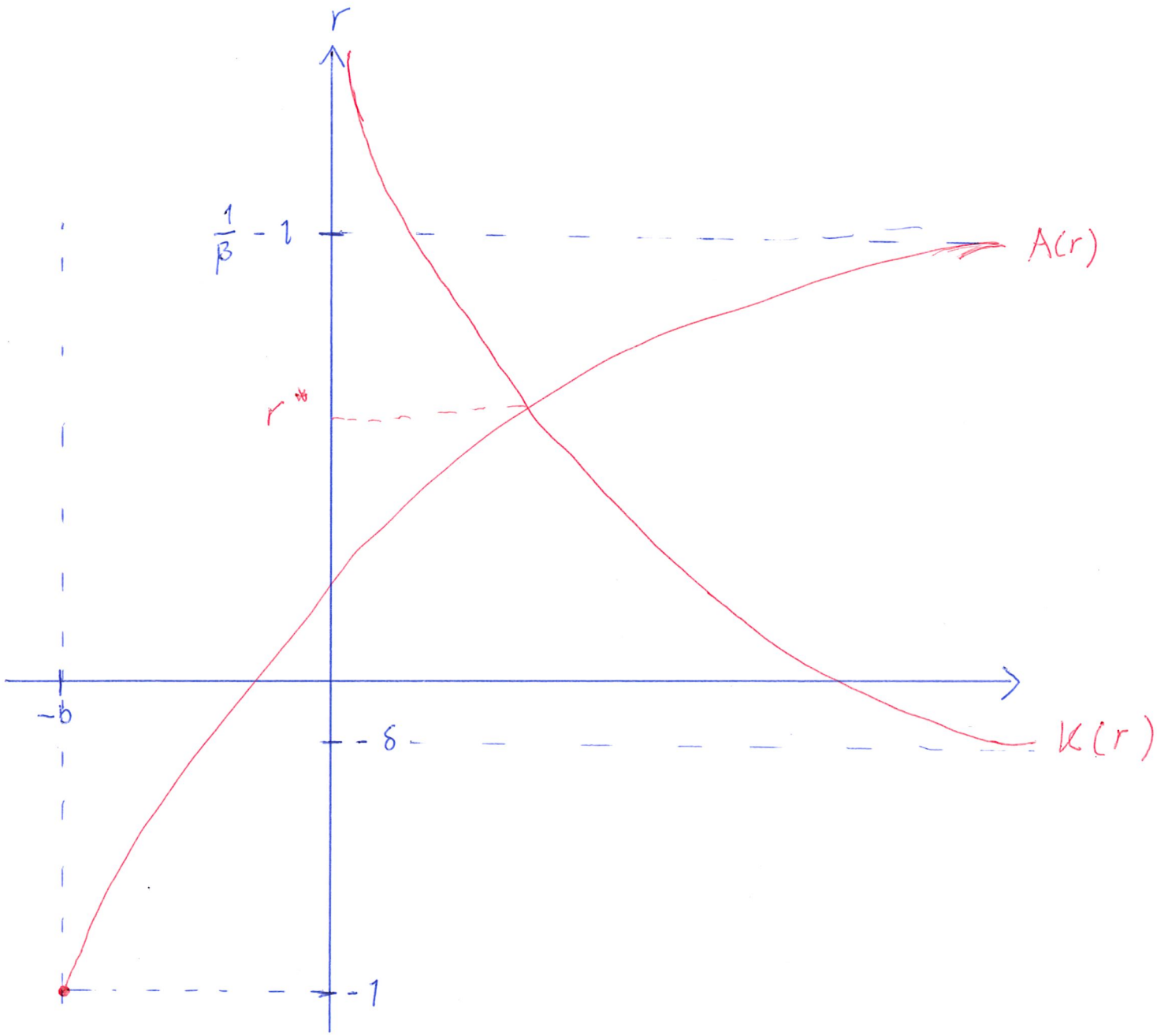

$$K(r) = \left(\frac{r+\delta}{\alpha}\right)^{\frac{1}{\alpha-1}}$$

Eulers' theorem

CRS:

$$F(AK', AL') = AF(K', L')$$

Differentiate wrt A:

$$F_K(AK', AL')K' + F_L(AK', AL')L' = F(K', L')$$

Differentiate wrt K:

$$F_{KK}(AK', AL')AK' + F_K(AK', AL')$$

$$+ F_{LK}(AK', AL')AL' = F_K(K', L')$$

~~$\Leftrightarrow$ $F_{KK}(AK', AL')AK' + F_{LK}(AK', AL')AL' = 0$~~

Evaluate at $A = 1$

$$\Rightarrow F_{KK}(K', L')K' + F_{LK}(K', L')L' = 0$$