I) \[ e = y_{des} - y \]
\[ G_{aI}(s) = C(s) \cdot F(s) \]
\[ W_{I}(s) = \frac{y(s)}{e(s)} = \frac{kr \cdot G_{aI}(s)}{1 + G_{aI}(s)} \]
\[ W_{eI}(s) = \frac{e(s)}{r(s)} = \frac{kr}{1 + G_{aI}(s)} \]
\[ W_{duI}(s) = \frac{y(s)}{du(s)} = \frac{G_{2}(s)}{1 + G_{aI}(s)} \]

II) \[ e_{r} = r - \frac{y}{kr} = \frac{kr \cdot r - y}{kr} = \frac{e}{kr} \]
\[ G_{aII}(s) = \frac{C(s) \cdot F(s)}{kr} \]
\[ W_{II}(s) = \frac{y(s)}{r(s)} = \frac{C(s) \cdot F(s)}{1 + G_{aII}(s)} = \frac{kr \cdot G_{aII}(s)}{1 + G_{aII}(s)} \]
\[ W_{eII}(s) = \frac{e(s)}{r(s)} = \frac{kr \cdot e_{r}(s)}{r(s)} = \frac{kr}{1 + G_{aII}(s)} \]