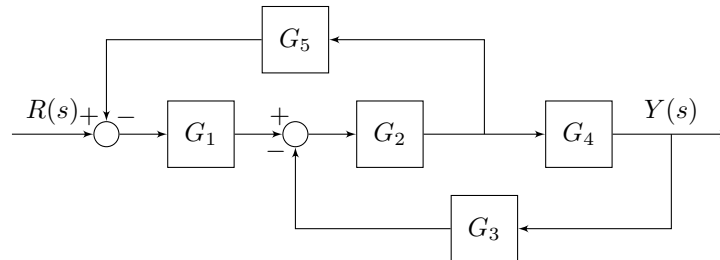


ISS Final test (group 1)

Block diagram transformations

Perform block diagram reduction and determine the single transfer function $\frac{Y(s)}{R(s)}$.



Fuzzy logic

Using the Zadeh s and t-norm and Mamdani's implication, calculate the value of z for given values x and y .

$$\mu_A(x) = \left\{ \frac{0.1}{1}, \frac{0.5}{2}, \frac{0.0}{3}, \frac{0.3}{4}, \frac{0.7}{5} \right\}$$

$$\mu_B(y) = \left\{ \frac{1.0}{15}, \frac{0.0}{30}, \frac{0.2}{45}, \frac{0.3}{60} \right\}$$

$$\mu_N(z) = \left\{ \frac{0.2}{25}, \frac{0.3}{50}, \frac{1.0}{75} \right\}$$

$$\mu_M(z) = \left\{ \frac{0.0}{25}, \frac{0.5}{50}, \frac{0.7}{75} \right\}$$

$$\mu_K(z) = \left\{ \frac{0.2}{25}, \frac{0.6}{50}, \frac{0.9}{75} \right\}$$

1. if x is $\neg A \vee y$ is B then z is N
2. if x is $\neg A$ then z is M
3. if x is $\neg A \wedge y$ is $\neg B$ then z is $\neg K$

$$x = 1; y = 45; z = ?$$

ISS Final test (group 2)

ISS Final test (group 3)

ISS Final test (group 4)