

Jawaban

$$2.1 \quad C = 0.1Y + B$$

$$B = 2A$$

$$A = U - 0.1C$$

$$B = 2(U - (0.01Y + 0.1B))$$

$$A = U - 0.1(0.1Y + B)$$

$$B = 2U - (0.02Y + 0.2B)$$

$$A = U - (0.01Y + 0.1B)$$

$$Y = 3B$$

$$Y = 3(1.66U - 0.0166Y)$$

$$Y = 5U - 0.15Y$$

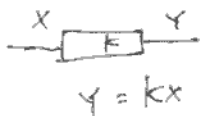
$$Y + 0.15Y = 5U$$

$$1.15Y = 5U$$

$$\frac{Y}{U} = \frac{5}{1.15} = 3.33$$

$$Y = 3.33X$$

$$K = 3.33$$



$$B + 0.2B = 2U - 0.02Y$$

$$1.2B = 2U - 0.02Y$$

$$B = 1.66U - 0.0166Y$$

ribet ??
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$$2.2 \quad B = Y(t) + \frac{dy(t)}{dt}$$

$$C = X(t) - 4B$$

$$C = X(t) - 4Y(t) - 4 \frac{dy(t)}{dt}$$

$$\frac{d^2y(t)}{dt^2} = X(t) - 4Y(t) - 4 \frac{dy(t)}{dt}$$

$$\frac{d^2y(t)}{dt^2} + 4Y(t) + 4 \frac{dy(t)}{dt} = X(t) \text{ atau}$$

$$\frac{d^2y(t)}{dt^2} + 4 \frac{dy(t)}{dt} + 4Y(t) - X(t) = 0$$

Alih Alih

$$\left(\frac{d^2y(t)}{dt^2} + 4 \frac{dy(t)}{dt} + 4Y(t) \right) = X(t)$$

$$s^2Y(s) + \underbrace{sY(0)}_0 + \underbrace{Y'(0)}_0 + 4 \left(sY(s) + \underbrace{Y(0)}_0 \right) + 4Y(s) = X(s)$$

$$Y(s)(s^2 + 4s + 4) = X(s)$$