

Problem 4.35 Draw the Direct Form II realization of the LTI system

$$\frac{d^2y}{dt^2} + 2\frac{dy}{dt} + 3y(t) = 4\frac{d^2x}{dt^2} + 5\frac{dx}{dt} + 6x(t).$$

Solution: Read off coefficients $\{a_i\}$ and $\{b_i\}$, and insert into Fig. 4-21(b):

