

---

**EXERCISE 9.5:** Use  $z$ -transforms to combine the following cascaded systems

$$w[n] = x[n] + x[n - 1]$$

$$y[n] = w[n] - w[n - 1] + w[n - 2]$$

into a single difference equation for  $y[n]$  in terms of  $x[n]$ .

