

Opgave 2.4

I skal ikke nå samme resultat som bogen da de benytter fourier transform . Men beregne værdierne numerisk.

Type equation here.

$$y[n] - \frac{3}{4} y[n-1] + \frac{1}{8} y[n-2] = 2x[n-1]$$

~~y[n]~~

$$x[n] = \delta[n]$$

$$y[n] = 0; n < 0$$

~~y[0]~~

$$y[n] = 2x[n-1] + \frac{3}{4} y[n-1] - \frac{1}{8} y[n-2]$$

$$y[0] = 0 + 0 + 0$$

$$y[1] = 2 + 0 + 0 = 2$$

$$y[2] = 0 + \frac{3}{4} \cdot 2 - 0 = \frac{3}{2}$$

$$y[3] = 0 + \frac{3}{4} \cdot \frac{3}{2} - \frac{1}{8} \cdot 2 = \frac{7}{8}$$

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