4.05bc

lördag 3 februari 2024 11:33

b)

$$\frac{s}{s^2+16} = \frac{s}{s^2+4^2}$$

$$L^{-1}\left(\frac{s}{s^2+16}\right) = \underline{\cos 4t\,\theta(t)}$$

c)

$$F(s) = \frac{1}{s^2+4s+8} = \frac{1}{(s+2)^2+2^2}$$

$$u = s+2$$

$$F(u) = \frac{1}{u^2+2^2} \cdot \frac{2}{2}$$

$$f(u) = \frac{1}{2}\sin 2u\,\theta(u)$$

Sv. $e^{-2t} \cdot 1/2 \sin 2t\,\theta(t)$

regel 2, s. 42