

**Zadatak 18.** Ako je  $f(2x) = e^{-x}$ , odredi  $(f^{-1})'(x)$ .

**Rješenje.**

$$2x = t \implies x = \frac{t}{2} \implies f(t) = e^{-\frac{t}{2}} \implies f(x) = e^{-\frac{x}{2}},$$
$$x = e^{-\frac{y}{2}} \implies -\frac{y}{2} = \ln x \implies -y = 2 \ln x \implies f^{-1}(x) = -2 \ln x,$$
$$(f^{-1})'(x) = -\frac{2}{x}.$$