

Brief solutions to selected problems in homework week 07

1. Section 3.8, problems 8:

$$\left. \frac{df^{-1}(y)}{dy} \right|_{y=0} = \frac{1}{\left. \frac{df(x)}{dx} \right|_{x=5}} = \frac{1}{6}$$

2. Section 3.8, problems 98:

Use

(a) the identity $(\dots)^n = \left((\dots)^{\frac{n}{x}} \right)^x$

(b) Theorem 4

(c) Theorem 10 of section 2.5

(d) The function $f(a) = a^x$ is continuous at $a = e$

to get the answer $= e^x$.