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Math 2250, Fall 2008, Homework 1
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1. Which of the following functions $f : \mathbf{R} \longrightarrow \mathbf{R}$ is linear?

   (a) $f(x) = 1$

   (b) $f(x) = -3x$

   (c) $f(x) = 1 - x$

2. Find (if possible) linear functions $f : \mathbf{R} \longrightarrow \mathbf{R}$ which satisfy

   (a) $f(3) = 1$

   (b) $f(3) = 1$ and $f(1) = 3$

   (c) $f(3) = 9$ and $f(1) = 3$

   Also do problems numbered 1,4,5,8,9,12,13,15,17,21,25 in Section 1.1.