SE120 - Discrete Structures II
Test 4 - Solutions
Friday 7 May 2004, 11:00, Lab4

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1. $f : \mathbb{N} \to B, f(x) = -2x - 1$ **[1 mark]**
   $g : B \to \mathbb{N}, g(x) = (x + 1)/(-2)$ **[1 mark]**
2. $f : \mathbb{N} \to A, f(x) = (x \times 10) + 7$ **[1.5 marks]**
   $g : A \to \mathbb{N}, g(x) = \text{floor}(x/10)$ **[1.5 marks]**

   or

   $A \subset \mathbb{N}$ and $\mathbb{N}$ is countable, therefore A must be countable **[3 marks]**