

**King Fahd University of Petroleum and Minerals**  
**Math Prep-Year Program Math 001**  
**Term 061 Quiz# 5**

**Name:** \_\_\_\_\_ **ID#:** \_\_\_\_\_ **Sec. 47**

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**Q1**  $f(x) = \begin{cases} x^2 - 5, & x < 1 \\ \lfloor 2x + 2 \rfloor, & 1 \leq x < 4 \\ 2x - 5, & x \geq 4 \end{cases}, \quad g(x) = \sqrt{x+1}$

Find  $(f \circ f \circ g)(1)$

**Q2.** If  $f(x) = \frac{2x}{x+3}, x \neq -3$  and  $f^{-1}(x) = \frac{ax}{x-b}$ , then  $ab =$