King Fahd University of Petroleum and Minerals
Math 001
Quiz#5A (2.6,3.1)

Name:————————, ID#:————————,

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1-If $f(x) = \sqrt{2-x}$ and $g(x) = \sqrt{x+3}$, then the domain of $\left(\frac{f}{g}\right)(x)$ is

a) $[-2, 3)$ b) $(-3, \infty)$ c) $(-3, 2]$ d) $(-\infty, -3] \cup [2, \infty)$ e) $(-\infty, -2] \cup (3, \infty)$

2-If $f(x) = \begin{cases} 2x - 1, & \text{if } x \leq -1 \\ 2x + 3, & \text{if } x > -1 \end{cases}$, and $g(x) = [x]$, where $[]$ is the greatest integere function, then $(f \circ g)(-0.3) + \sqrt{(f \cdot g)(0.5)}$ is equal to

$a) -2$ $b) -4$ $c) -1$ $4) -3$ $e)1$

3- If $f(x) = 2x - 1$ and $(f \circ g)(x) = 2x + 1$, then $g(x)$ is equal to

$a) -2$ $b)2x + 2$ $c)2$ $d)x + 2$ $e)x + 1$

4- The values of k so that when $x^2 - 3x - 8$ is divided by $x + k$, the remainder $= -4$ is

$a)1, -4$ $b) -1, 4$ $c)12, -4$ $d)4, 1$ $e) -8, -4$

5-The remainder when dividing $3x^3 - 2x^2 - 150$ by $x^2 - 4$ is

$a)12x + 142$ $2)12x - 150$ $c)14x + 142$ $d)12x - 158$ $e) -12x + 158$