

Name:

## QUIZ – MATH GRADE 11

1. (100%) Given that:  $f(x) = 2x^2 + 4x$ ,  $g(x) = \ln(x - 3) + 2$ ,  $s(x) = \frac{2x+1}{3-4x}$ , find:

a. (8%)  $f(g(e + 3)) =$

b. (8%)  $s(g(x)) =$

c. (8%)  $f(f(x)) =$

d. (8%)  $s(g(f(x))) =$

e. (12%)  $g^{-1}(x) =$

f. (12%)  $s^{-1}(x) =$

g. (12%)  $f^{-1}(6) =$

h. (10%)  $s^{-1}(s(x)) =$

i. (12%) Sketch  $f(x)$  and  $f^{-1}(x)$  on the same graph,

j. (10%) What is the graphical relation between the curves  $f(x)$  and  $f^{-1}(x)$ ?

