

Pencils and Erasers Only – No Calculators Needed.

1 Let  $f(x) = 3 - x^2$  and  $g(x) = 3x - 2$ .

(a) Expand and simplify  $(f \circ g)(x)$

(b) Compute the  $x$ -intercepts of the graph of  $(f \circ g)$ .

(c) Sketch a quick graph of  $(f \circ g)$ . Label intercepts and other salient points with their coordinates.