

Remote Assessment 6.3

Given  $f(x) = 3x^2 - 1$     $g(x) = \sqrt{2x - 5}$     $h(x) = \frac{1}{x-2}$ , find

1.  $f(2 + a)$  1. \_\_\_\_\_

2.  $f \circ g$  2. \_\_\_\_\_

3.  $h^{-1}(x)$ . State any restrictions inherited from h 3. \_\_\_\_\_

4.  $g^{-1}(x)$  State any restrictions inherited from g 4. \_\_\_\_\_

5.  $g \circ f$  State domain using exact values 5. \_\_\_\_\_

6.  $f^{-1}(x)$ . Then confirm **algebraically** that your answer and f are inverses.  
6. \_\_\_\_\_