

## MCR3U – Extra Unit 2 Review

1. Simplify and state restrictions.

a)  $\frac{3(x+4)}{5x} \times \frac{25x^3(2-x)^2}{12(2-x)^5}$

b)  $\frac{3x+2}{4x^2-1} + \frac{2x-5}{4x^2+4x+1}$

c)  $\frac{10x^2+3xy-y^2}{9x^2-y^2} \div \frac{6x^2+3xy}{12x+4y}$

2. Given that  $p(x) = \frac{1}{2}(4-x)^3$ , graph  $p(x)$  and  $p^{-1}(x)$ .

3. Given that the function  $f(x) = \frac{1}{x}$  has been transformed to  $g(x) = -3f(6x-12) + 1$ :

a) Rewrite  $g(x)$  in terms of the base function given for  $f(x)$ .

b) Describe a different set of transformations that would result in the same graph.

4. Graph  $f(x) = -3|-2(x-4)| - 1$

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