

1a. Show that  $f(x) = \frac{3-x}{1-x}$  is its own inverse.

1b. What does the result in part (a) tell you about the graph of  $f$ .

2. Let  $f(x) = 2x^3 + 5x + 3$ . Find  $x$  if  $f^{-1}(x) = 1$ .

3. Graph  $y = 2^{2x-1}$  and  $y = \frac{4^x}{2}$ . Any observations? Explain why “this” happened?