Practice worksheet | Functions and graph sketching

Inverse functions and restricted domains

Name: _____ Date: _____

6 questions | 20 marks

1. Find the inverse of $f(x) = \frac{2x+1}{3}$. [3 marks]

2. Find the inverse of $f(x) = (x-3)^2 + 2$, restricted to $x \geq 3$. Give its domain and range. [4 marks]

3. Find the inverse of $f(x) = (x-3)^2 + 2$ when $x \leq 3$. [3 marks]

4. Find the inverse of $f(x) = \frac{x}{x-1}$, $x \neq 1$. [4 marks]

5. Find the inverse of $f(x) = 3e^x - 4$ and its domain. [3 marks]

6. Find a domain restriction for $f(x) = |x + 1|$ that gives inverse $x - 1$, and state the inverse domain. [3 marks]