Practice worksheet | Algebra

Checking solutions and domains

Name: _____ Date: _____

6 questions | 14 marks

1. State the real domain of $f(x) = \frac{1}{x+6}$. [2 marks]

2. State the real domain of $g(x) = \sqrt{3-x}$. [2 marks]

3. State the real domain of $h(x) = \frac{\sqrt{x}}{x-9}$. [2 marks]

4. Check whether $x = 4$ solves $\frac{3}{x-1} = 1$. [2 marks]

5. A bus hire cost is $C = \frac{180}{n}$ dollars per passenger, with at most 30 passengers. State a sensible domain. [3 marks]

6. A calculation for $\frac{1}{x-2} = 1$ gives $x = 3$. Another student says $x = 2$ is also possible because multiplying by $x - 2$ removes the denominator. Decide both claims. [3 marks]