Practice worksheet | Functions and straight-line graphs

Inverse-proportion graphs and asymptotes

Name: _____ Date: _____

6 questions | 12 marks

1. y is inversely proportional to x, with $y=6$ at $x=4$. Find its rule. [2 marks]

2. For $y=\frac{-18}{x}$, find y at $x=3$ and $x=-6$. [2 marks]

3. Determine whether $(2,12)$, $(3,8)$, $(6,4)$ fit one inverse-proportion rule. [2 marks]

4. For $y = \frac{5}{x+2} - 3$, state its vertical and horizontal asymptotes. [2 marks]

5. A rectangular garden has fixed area 48 m². Express width w in terms of length l, and find w when $l = 12$ m. [2 marks]

6. Explain why $y = 12 - 2x$ is not inverse proportion, even while it is positive and decreasing. [2 marks]