Question 15 (4 marks)

The graph of $y = m\log_3(x - p) + q$ has a vertical asymptote at $x = 5$.

(a) Explain why $p = 5$. (2 marks)

(b) If this graph passes through the points $(6, 2)$ and $(14, -6)$, determine the values of m and q. (2 marks)