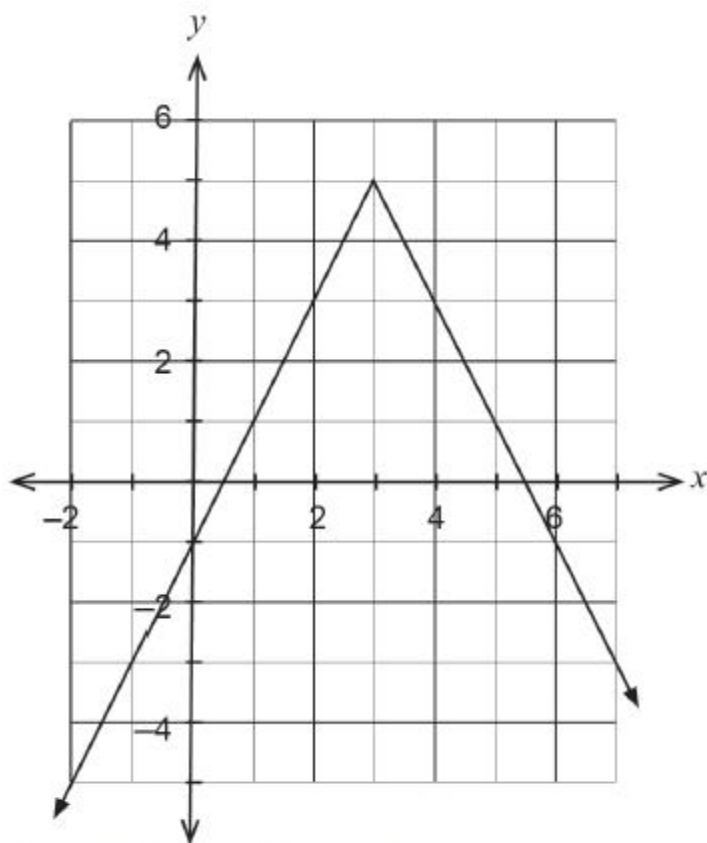**Question 12** **(6 marks)**

The graph of $f(x) = a\left|x - b\right| + c$ is shown below.

(a)   Determine the values for the constants a, b and c.   (3 marks)

Consider the equation $|f(x)| = d$.

(b)   If the equation $|f(x)| = d$ has exactly four solutions, state the possible value(s) for the constant d. Explain.   (3 marks)