

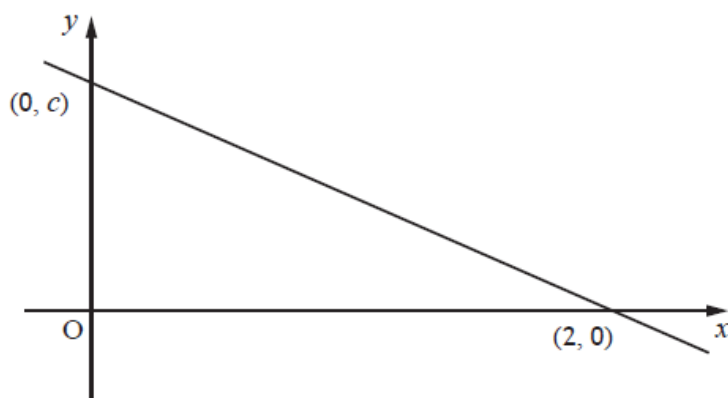
1

Given $f(x) = \frac{x-1}{1+x^2}$, show that $f'(x) = \frac{1+2x-x^2}{(1+x^2)^2}$.

3

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Part of the straight line graph of a function $f(x)$ is shown.



(a) Sketch the graph of $f^{-1}(x)$ showing points of intersection with the axes.

2

(b) State the value of k for which $f(x) + k$ is an odd function.

1

(c) Find the value of h for which $|f(x+h)|$ is an even function.

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