Name: _____ 5-a-day Further Maths

**17th July**

Corbettmaths

The nth term of a sequence is $\frac{6n-3}{10n}$

Which term in the sequence is equal to 0.58?

$\frac{6n-3}{10n} = 0.58$

$6n - 3 = 5.8n$

$0.2n = 3$

$n = 15$

Work out the difference between the 5th and 12th terms

$t_5 = 0.54$

$t_{12} = 0.575$

$0.035 = \text{diff}$

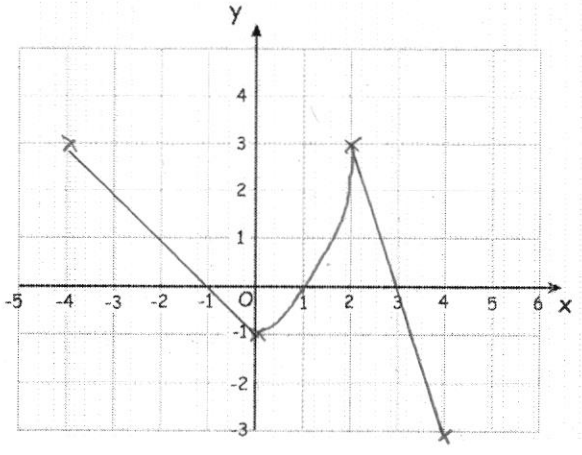
A function f(x) is defined as

$f(x) = -x - 1 \quad -4 \leq x < 0$

$= x^2 - 1 \quad 0 \leq x < 2$

$= 9 - 3x \quad 2 \leq x \leq 4$

Draw the graph of $y = f(x)$




$y = x^5 - 6x^3 + x$

Work out $\frac{d^2y}{dx^2}$

$\frac{dy}{dx} = 5x^4 - 18x^2 + 1$

$\frac{d^2y}{dx^2} = 20x^3 - 36x$