21st January **Higher Plus 5-a-day**

Corbettmaths

Express as a single fraction.

$$\frac{1}{x+1}+\frac{4}{x-2}$$

Salary (£1000s)	Frequency
$0 < s \leq 10$	8
$10 < s \leq 20$	48
$20 < s \leq 30$	50
$30 < s \leq 50$	11
$50 < s \leq 200$	3

Calculate an estimate of the median salary

Show the equation

$$x^3+3x=1$$

has a solution between x=0 and x=1

Show the equation

$$x^3+3x=1$$

can be rearranged to give

$$x=\frac{1}{3}-\frac{x^3}{3}$$

Starting with $x_1=0$

use the iteration formula

$$x_{n+1}=\frac{1}{3}-\frac{(x_n)^3}{3}$$

three times to find a solution to

$$x^3+3x=1$$