Start here for Question Number: 9

[a] (i) A = $500 0.5% = 0.05 monthly = 12 months

$500 at 0.0042 per month. 240 months = 20 years

1. $500 [1 + 0.0042 + 0.0042^2 + ... + 0.0042^{240}]

$P = S_n$ $a\frac{(1-r^n)}{1-r}$ $a=1$ $r=0.042$ $n=240$

$P = 1\left(\frac{1-0.042^{240}}{1-0.042}\right)$

$P = 232175.55$ As Required.

(ii) i)

2. 720

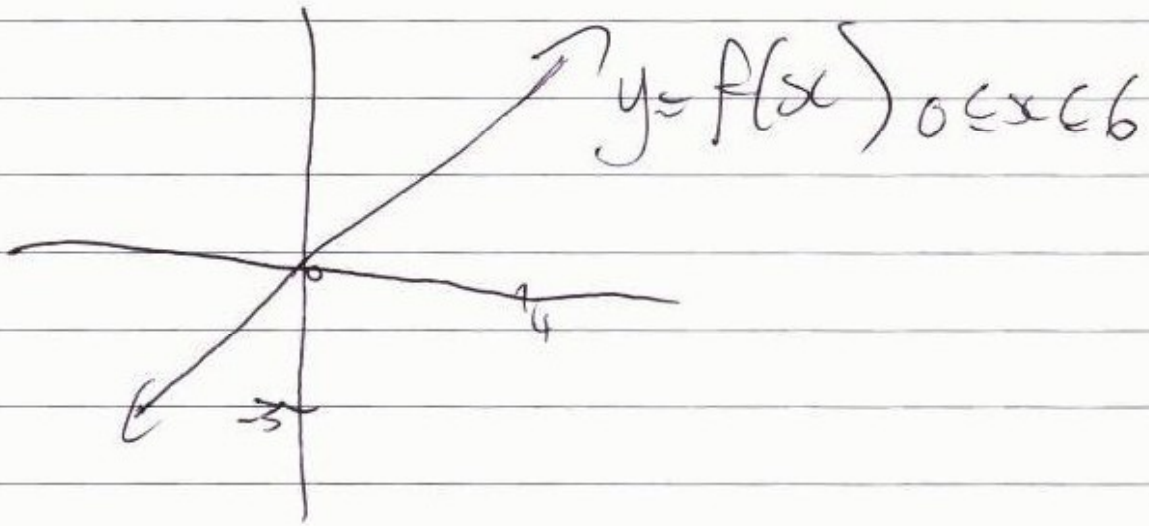
b) i) $A_1 = 4$ $A_2 = 4$

Increasing for $x = 2$ and 4

ii) Max value $y = 3$

iii) $f(6) = -3$

iv)



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