

05/05/2022 ACHA 4006 2005245

Question 5

i) $3^{x+4} = 7^x$

~~$\log 3^{x+4} = \log 7^x$~~

$$\log 3^{x+4} = \log 7^x$$

$$(x+4) \log 3 = x \log 7$$

$$(x+4) 0.48 = 0.85x$$

$$0.48x + 0.48 = 0.85x$$

$$0.48x - 0.85x = -0.48$$

$$-0.37x = -0.48$$

$$x = \frac{0.48}{-0.37}$$

$$x = 1.29$$