

④

MAKE x THE SUBJECT.

$$y = \frac{t(x^2 + R)}{\theta}$$

~~scribbled out~~

$$x = \sqrt{\frac{y\theta}{t} - R}$$

⑤

SOLVE FOR x

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

$$x + 4 = \log_3(7^x)$$

$$x - \log_3(7^x) = -4$$

$$(1 - \log_3(7))x = -4$$

$$x = 5.19$$

ii) $\log(x+5) + \log(x+2) = \log(x+7) + \log(x+6)$

$$(x+5) + (x+2) = (x+7) + (x+6)$$

~~scribbled out~~

$$x^2 + 2x + 5x + 10 = x^2 + 6x + 7x + 42$$

~~scribbled out~~

$$2x + 5x + 10 = 6x + 7x + 42$$

$$7x + 10 = 13x + 42$$

$$7x - 13x = 42 - 10$$

$$x = -5.3$$