

⑤
⑪ $\log(x+5) + \log(x+2) = \log(x+7) + \log(x+6)$

$$\cancel{\log}(x+5) + \cancel{\log}(x+2) = \cancel{\log}(x+7) + \cancel{\log}(x+6)$$

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

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

$$\cancel{x^2} + \cancel{x} + 5x + 10 = \cancel{x^2} + \cancel{x} + 7x + 42$$

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

$$10 - 42 = 7x - 5x$$

$$-32 = 2x$$

$$\frac{-32}{2} = x$$

$$-16 = x$$
