$$\frac{V(s)}{V_c(s)} = \frac{ab}{s+a} \qquad V_c(s) = \frac{300}{s}$$

$$V(s) = V_c(s) \cdot \frac{ab}{s+a}$$

$$V(s) = 300 \cdot \frac{ab}{s(s+a)}$$

$$V(s) = 300ab \cdot \frac{1}{s(s+a)}$$

$$V(t) = 300ab \cdot \frac{1}{a}\left(1 - e^{-at}\right)$$

$$= 300b\left(1 - e^{-at}\right)$$

Left:

$a = 12.96$

$b = 0.003352$

Right:

$a = 13.19$

$b = 0.003267$