$$A := \frac{A0}{s + a1 + a2}$$

$$A := \frac{A0}{s + a1 + a2} \tag{1}$$

$$> B := \frac{a1 \cdot A}{s + a3}$$

$$B := \frac{a1A0}{(s+a1+a2)(s+a3)}$$
 (2)

>
$$A := \frac{A0}{s+a1+a2}$$

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$$A := \frac{A0}{s+a1+a2}$$

$$B := \frac{a1 \cdot A}{s+a3}$$

$$C := simplify \left(\frac{(a2 \cdot A + a3 \cdot B)}{s} \right)$$

$$C := \frac{(a2s+a3)(a1+a2)(a2+a3)}{(a2+a3+a2)(a3+a3)}$$

$$C := \frac{(a2s + a3(a1 + a2))A0}{(s + a1 + a2)(s + a3)s}$$
 (3)

| inv := invlaplace(C, s, t) |

$$inv := A0\left(1 + \frac{-a1e^{-a3t} + e^{-(a1+a2)t}(-a2+a3)}{-a3+a1+a2}\right)$$
 (4)

 $| \overline{} > limit(inv, t = infinity)|$

$$\lim_{t \to \infty} A0 \left(1 + \frac{-a1 e^{-a3t} + e^{-(a1+a2)t} (-a2+a3)}{-a3+a1+a2} \right)$$
 (5)

Seems like this will be done manually.