> restart: with(LinearAlgebra): with(plots): with(plottools): with(inttrans): assume(t, 'integer'): assume(a1 R 0): assume(a2 R 0): assume(a3 R 0):>  $c := \frac{(a2 \cdot A0 \cdot (s + a3) + a3 \cdot a1 \cdot A0)}{s \cdot (s + a1 + a2) \cdot (s + a3)}$   $c := \frac{a2 \sim A0 (s + a3 \sim) + a3 \sim a1 \sim A0}{s (s + a1 \sim + a2 \sim) (s + a3 \sim)}$ (1)  $\begin{array}{c}
c_{inv} \coloneqq invlaplace(c, s, t) \\
c_{inv} \coloneqq A0 \left( 1 + \frac{-a1 \sim e^{-a3 \sim t \sim} + e^{-(a1 \sim +a2 \sim) t \sim} (-a2 \sim +a3 \sim)}{-a3 \sim +a1 \sim +a2 \sim} \right)
\end{array}$ (2)

> 
$$limit(c_inv, t = infinity)$$
A0
(3)