

Math DM 1

$$\ln \frac{3(0,5-x)}{5(0,3-x)} = 0,004t$$

$$\frac{3}{5} * \frac{(0,5-x)}{(0,3-x)} = e^{0,004t}$$

$$0,6 * \frac{(0,5-x)}{(0,3-x)} = e^{0,004t}$$

$$-0,6 * \frac{(0,5-x)}{(0,3-x)} = e^{-0,004t}$$

$$0,5-x = \frac{0,3-x}{0,6} * e^{-0,004t}$$

$$-x = \frac{0,3-x}{0,6} * e^{-0,004t} - 0,5$$

$$x = 0,5 - \frac{0,3-x}{0,6} * e^{-0,004t}$$

$$x = \frac{0,5*0,6}{0,6} - \frac{0,3-x}{0,6} * e^{-0,004t}$$

$$x = \frac{0,3(1-e^{-0,004t}) - x * e^{-0,004t}}{0,6}$$

$\ln \{3(0,5-x)\} \text{ over } \{5(0,3-x)\} = 0,004t$

newline newline

$3 \text{ over } 5 * \{(0,5-x) \text{ over } (0,3-x)\} = e^{\{0,004t\}}$

newline newline

$0,6 * \{(0,5-x) \text{ over } (0,3-x)\} = e^{\{0,004t\}}$

newline newline

$-0,6 * \{(0,5-x) \text{ over } (0,3-x)\} = e^{\{-0,004t\}}$

newline newline

$0,5-x = \{0,3-x\} \text{ over } 0,6 * e^{\{-0,004t\}}$

newline newline

$-x = \{0,3-x\} \text{ over } 0,6 * e^{\{-0,004t\}} - 0,5$

newline newline

$x = 0,5 - \{0,3-x\} \text{ over } 0,6 * e^{\{-0,004t\}}$

newline newline

$x = \{0,5*0,6\} \text{ over } 0,6 - \{0,3-x\} \text{ over } 0,6 * e^{\{-0,004t\}}$

newline newline

$x = \{0,3(1-e^{\{-0,004t\}}) - x * e^{\{-0,004t\}}\} \text{ over } 0,6$