

$$y_{out} = \frac{600}{2000} = 0.03y$$

$$\frac{dy}{dt} = 600 - 0.03y$$

$$\frac{dy}{dt} = -0.03(y - 20000)$$

$$90\% \times 20000 = 18000$$

$$y = 18000$$

$$18000 = -20000e^{-0.03t} + 20000$$

$$18000 - 20000 = -20000e^{-0.03t}$$

$$0.1 = e^{-0.03t}$$

$$\ln(0.1) = -0.03t$$

$$t = 76.8 \text{ min}$$

$$y_{in} = 600$$
$$y_{out} = \frac{600}{2000} = 0.03y$$

$$\frac{dy}{dt} = 600 - 0.03y$$

$$\frac{dy}{dt} = -0.03(y - 20000)$$

$$\int dy = \int -0.03 dt$$

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

Cut Copy Paste Format Painter Clipboard

Calibri 11 Font

Wrap Text Merge & Center Alignment

General Number

Conditional Formatting Table Styles

Normal Good Bad Neutral

Insert Delete Format Cells

AutoSum Fill Clear Editing

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