

Using exponents on the *fx-82MS* calculator

Eg  $V = I.R$

Find I if  $V=9$  and  $R= 56K\Omega$

$$I = V/R$$

$$= 9/ 56,000$$

$$9/ 56000 = 0.000160714 \text{ A}$$

$$\times 1000 = 0.1607 \text{ mA}$$

using exponents:

$$= 9/ (56 \times 10^3)$$

on the *fx-82*:

$$9 \div 56 \text{EXP} 3 = 0.000160714 \text{ (Amps)}$$

$$\times 1000 = 0.1607 \text{ mA}$$

and also using the Engineering function;

$$9 \div 56 \text{EXP} 3 = 0.000160714$$

$$\text{ENG} \quad 160.71 \times 10^{-6} \text{ (}\mu\text{A)}$$

Try these:

$$1 \text{EXP} 3 = 1000 \quad (\text{K})$$

$$1 \text{EXP} -3 = 0.001 \quad (\text{m})$$

Example 2:

Three resistors are connected in parallel.

Find the total R if  $R_1 = 2K2$ ,  $R_2 = 4K7$ , and  $R_3 = 3K\Omega$

$$\begin{aligned} 1/R_T &= [(1 \div R_1) + (1 \div R_2) + (1 \div R_3)] \\ &= (1 \div 2200) + (1 \div 4700) + (1 \div 3000) \end{aligned}$$

on the *fx-82*:

$$(1 \div 2200) + (1 \div 4700) + (1 \div 3000) = 1 \times 10^{-03}$$

$$x^{-1} = 1000\Omega$$

Notes: To reset the calculator: SHIFT, CLEAR, 3, =

To reset the memory (M): 0, SHIFT, STO, M+