

1) 2) Tensión = $[37,6V]$

$I = \frac{12V}{8k\Omega} = [1,5mA]$

$V_{R1} = (1,5mA + 11,3mA) \cdot 2k\Omega = [25,4V]$

$V_p = 12V + 25,4V = [37,6V]$

en diodo

$I = \frac{12V - 0,7V}{1k\Omega} = [11,3mA]$

b) $I_{R1} = [12,7mA]$

$I_{R2} = [11,3mA] = I_{D1}$

$I_{R3} = [1,5mA] = I_{D2}$

c) $V_{R1} = [25,4V]$
 $V_{D1} = [0,7V]$

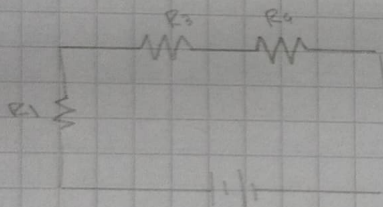
$V_{R2} = [11,3V]$
 $V_{R3} = [7,15V]$
 $V_{D2} = [4,5V]$

d) $P = I^2 R$

$P_{R1} = [327W]$ $P_{R2} = [127W]$ $P_{R3} = [7,91W]$

$P_{R2} = [1125W]$ $P_{D2} = [6,75W]$

c) Nuevo circuito



$R_t = 2k\Omega + 5k\Omega + 3k\Omega = [10k\Omega]$

$I = \frac{37,6V}{10k\Omega} = [3,76mA]$

en $R1 = R3 = R4$
 $[3,76mA]$

en $V1 = R2 = 0A$

f) $V_{R1} = 3,76mA \cdot 2k\Omega = [7,52V]$

$V_{R2} = 0V$

$V_{R3} = 3,76mA \cdot 5k\Omega = [18,8V]$

$V_{R4} = 3,76mA \cdot 3k\Omega = [11,28V]$

g) $P_{R1} = [28,27W]$

$P_{R2} = [0W]$

$P_{R3} = [70,68W]$

$P_{R4} = [42,4W]$

