1. Convierte 1 KB en bits.

$$1\ KB \times \frac{2^{10}\ B}{1\ KB} \times \frac{2^{3}\ b}{1\ B} = 2^{13}\ b = 8192\ b$$

2. Pasa a bytes, expresando el resultado final como una potencia de 2:

a)

$$1024\ KB = 2^{10}\ KB$$

$$2^{10}\ KB \times \frac{2^{10}\ B}{1\ KB} = 2^{20}\ B$$

b)

$$34\ MB \simeq 64\ MB = 2^{6}\ MB$$

$$2^{6}\ MB \times \frac{2^{20}\ B}{1\ MB} = 2^{26}\ B$$

c)

$$7\ GB \simeq\ 8\ GB = 2^{3}\ GB$$

$$2^{3}\ GB \times \frac{2^{30}\ B}{1\ GB} = 2^{33}\ B$$

d)

$$1\ TB \times \frac{2^{40}\ B}{1\ TB} = 2^{40}\ B$$

3. Realiza las siguientes conversiones, expresando el resultado final como una potencia de 2:

a) $32\ TB = 2^{5}\ TB$

$$2^{5}\ TB \times \frac{2^{30}\ KB}{1\ TB} = 2^{35}\ KB$$

b) $256\ Mb = 2^{8}\ Mb$

$$2^{8}\ Mb \times \frac{2^{10}\ b}{1\ Mb} \times \frac{1\ B}{2^{3}\ b} = 2^{15}\ B$$

c) $2048\ KB = 2^{11}\ KB$

$$2^{11}\ KB \times \frac{1\ TB}{2^{30}\ KB} = \frac{1}{2^{19}}\ TB = 2^{-19}\ TB$$

d) $32769\ Tb \simeq 65536\ Tb = 2^{16}\ Tb$

$$2^{16}\ Tb \times \frac{2^{30}\ Kb}{1\ Tb} \times \frac{1\ KB}{2^{3}\ Kb} = 2^{43}\ KB$$

4. ¿Verdadero o falso?

a) Falso.

$32\ TB = 2^{5}\ TB$

$$2^{5}\ TB \times \frac{2^{40}\ B}{1\ TB} \times \frac{2^{3}\ b}{1\ B} = 2^{48}\ b$$

b) Verdadero.

$256\ Mb = 2^{8}\ Mb$

$$2^{8}\ Mb \times \frac{2^{20}\ b}{1\ Mb} \times \frac{1\ B}{2^{3}\ b} = 2^{25}\ B$$

c) Falso.

$$2^{25}\ KB \times \frac{1\ GB}{2^{30}\ KB} = 2^{-5}\ GB = 0,03125\ GB$$

d) Verdadero.

$$2\ PB \times \frac{2^{50}\ B}{1\ PB} = 2^{51}\ B$$

e) Verdadero.

$4\ TB = 2^{2}\ TB$

$$2^{2}\ TB \times \frac{2^{40}\ B}{1\ TB} \times \frac{2^{-1}\ nibbles}{1\ B} = 2^{41}\ nibbles$$

5. 122 Pb equivalen a:

a) $122\ Pb \simeq 128\ Pb = 2^{7}\ Pb$

$$2^{7}\ Pb \times \frac{2^{50}\ b}{1\ Pb} = 2^{57}\ b$$

6. 64 TB equivalen a:

b) $64\ TB = 2^6\ TB$

$$2^6\ TB \times \frac{2^{40}\ B}{1\ TB} \times \frac{2^3\ b}{1\ B} = 2^{49}\ b$$