	UNIVERSIDAD AUTONOMA "TOMAS FRIAS" **FACULTAD DE VICERRECTORADO** **CARRERA DE INGENIERIA DE SISTEMAS**	
PRACTICA N°3		
NOTA	***ASIGNATURA:*** Arquitectura de computadoras	***SIGLA:*** SIS-522
	DOCENTE: Ing. Puita Choque Gustavo Adolfo	***GRUPO:*** G-1
	AUXILIAR: Univ. Aldrin Roger Perez Miranda	***FECHA:***12/04/2022
	ESTUDIANTE: Univ. Alvaro Moyata Pascual	

Responda los siguientes ejercicios de manera sencilla con pasos claros

La práctica se debe realizar manuscrito

Fecha

1:

6M x 8

$6 * 1024^2 \times 8 = 50331648$ Bits ✓

2:

10G x 16

$10 * 1024^3 \times 16 = 1.717986918 \times 10^{11}$ Bits ✓

3:

20T x 32

$20 * 1024^4 \times 32 = 7.036874418 \times 10^{14}$ Bits ✓

4:

128K x 4

$128 * 1024 \times 4 = 524288$ Bits ✓

5:

1M x 16

$1 * 1024^2 \times 16 = 16777216$ Bits ✓

6:

5G x 64

$5 * 1024^3 \times 64 = 3.435973837 \times 10^{11}$ Bits ✓

7:

30T x 8

$30 * 1024^4 \times 8 = 2.638827907 \times 10^{14}$ Bits ✓

8:

256M x 32

$256 * 1024^2 \times 32 = 8589934592$ Bits ✓

9:

2K x 128

$2 * 1024 \times 128 = 262144$ Bits ✓

10:

15G x 16

$15 * 1024^3 \times 16 = 2.576980378 \times 10^{11}$ Bits ✓

Nota:

Fecha ___/___/___

11:

$n = 32$

$2^{32} = 4294967296$ localidades ✓

12:

$n = 64$

$2^{64} = 1.844674407 \times 10^{19}$ Localidades ✓

13:

$n = 128$

$2^{128} = 3.402823669 \times 10^{38}$ localidades ✓

14: $n = 256$

$2^{256} = 1.157920892 \times 10^{77}$ localidades ✓

15:

$n = 512$

$2^{512} = 1.340780792 \times 10^{154}$ localidades ✓

16: $n = 1024$

$2^{1024} = 1.797693134 \times 10^{308}$ localidades ✓

17:

$n = 2048$

$2^{2048} = 3.231700607 \times 10^{616}$ localidades ✓

18:

$n = 4096$

$2^{4096} = 1.044388881 \times 10^{1233}$ localidades ✓

19:

$n = 8192$

$2^{8192} = 1.090748135 \times 10^{2466}$ localidades ✓

20:

$n = 16384$

$2^{16384} = 1.189731495 \times 10^{4932}$ localidades ✓

Título: Nº
Fecha

21:- 512M x 8

$2^n = 512$

$n = \frac{\ln(512 \cdot 1024^2)}{\ln(2)} = 29$ líneas ✓

22:- 1T x 16

$2^n = 1$

$n = \frac{\ln(1 \cdot 1024^4)}{\ln(2)} = 40$ líneas ✓

23:- 2G x 32

$2^n = 2$

$n = \frac{\ln(2 \cdot 1024^3)}{\ln(2)} = 31$ líneas ✓

24:- 64K x 64

$2^n = 64$

$n = \frac{\ln(64 \cdot 1024)}{\ln(2)} = 16$ líneas ✓

25:- 4T x 4

$2^n = 4$

$n = \frac{\ln(4 \cdot 1024^4)}{\ln(2)} = 42$ líneas ✓

26:- 128M x 128

$2^n = 128$

$n = \frac{\ln(128 \cdot 1024^2)}{\ln(2)} = 27$ líneas ✓

27:- 10G x 16

$2^n = 10$

$n = \frac{\ln(10 \cdot 1024^3)}{\ln(2)} = 33$ líneas ✓

Nota:

28:- 256 T x 2

$2^n = 256$

$n = \frac{\ln(256 \cdot 1024^4)}{\ln(2)} = 48$ líneas ✓

29:- 8M x 256

$2^n = 8$

$n = \frac{\ln(8 \cdot 1024^2)}{\ln(2)} = 23$ líneas ✓

30:- 32 G x 8

$2^n = 32$

$n = \frac{\ln(32 \cdot 1024^3)}{\ln(2)} = 35$ líneas ✓

31:- 2 G x 8

$2 * 1024^3 \times 8 = 1.717986918 \times 10^{10}$ Bits

$\frac{1.717986918 \times 10^{10}}{8} = 2147483648$ Bytes

$\frac{2147483648}{1024^3} = 2$ Gigas ✓

32:- 10 T x 16

$10 * 1024^4 \times 16 = 1.759218604 \times 10^{14}$ Bits

$\frac{1.759218604 \times 10^{14}}{8} = 2.199023256 \times 10^{13}$ Bytes

$\frac{2.199023256 \times 10^{13}}{1024^3} = 20480$ gigas ✓

33 128 M x 4

$128 * 1024^2 \times 4 = 536870912$ Bits

$\frac{536870912}{8} = 67108864$ Bytes

$\frac{67108864}{1024^3} = 0.0625$ Gigabytes ✓

34:

1K x 32

$1 * 1024 \times 32 = 32768$ Bits

$\frac{32768}{8} = 4096$ Bytes

$\frac{4096}{1024^2} = 3.90625 \times 10^{-3}$ Megas ✓

35:

512G x 16

$512 * 1024^3 \times 16 = 8.796093022 \times 10^{12}$ Bits

$\frac{8.796093022 \times 10^{12}}{8} = 1.099511628 \times 10^{12}$ Bytes

$\frac{1.099511628 \times 10^{12}}{1024^2} = 1048576$ Megabytes ✓

36:

4T x 2

$4 * 1024^4 \times 2 = 8.796093022 \times 10^{12}$ Bits

$\frac{8.796093022 \times 10^{12}}{8} = 1.099511628 \times 10^{12}$ Bytes

$\frac{1.099511628 \times 10^{12}}{1024^3} = 1024$ gigas ✓

37:

64M x 64

$64 * 1024^2 \times 64 = 4294967296$ Bits

$\frac{4294967296}{8} = 536870912$ Bytes

$\frac{536870912}{1024^4} = 4.8828125 \times 10^{-4}$ Teras ✓

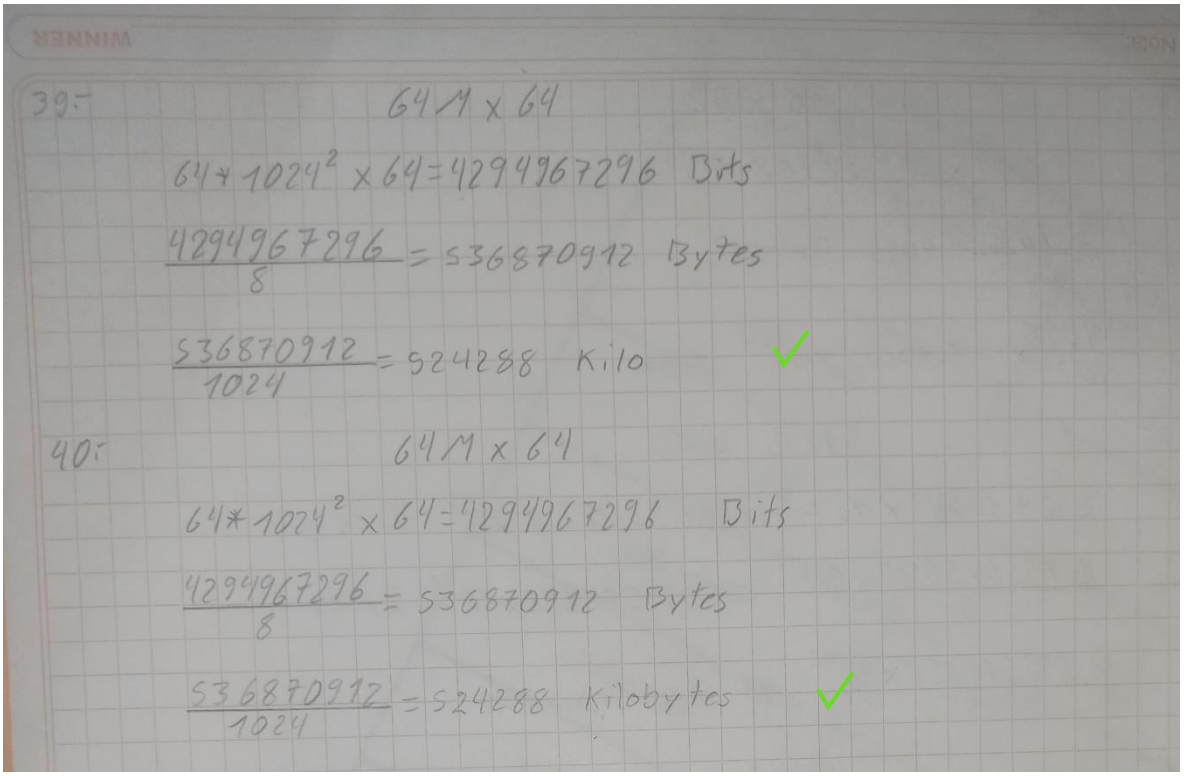
38:

64M x 64

$64 * 1024^2 \times 64 = 4294967296$ Bits

$\frac{4294667296}{8} = 536870912$ Bytes

$\frac{536870912}{1024^4} = 4.8828125 \times 10^{-4}$ Terabytes ✓



39:

64M x 64

$64 * 1024^2 \times 64 = 4294967296$ Bits

$\frac{4294967296}{8} = 536870912$ Bytes

$\frac{536870912}{1024} = 524288$ Kilo ✓

40:

64M x 64

$64 * 1024^2 \times 64 = 4294967296$ Bits

$\frac{4294967296}{8} = 536870912$ Bytes

$\frac{536870912}{1024} = 524288$ Kilobytes ✓