

Lista de Exercícios — Grandezas

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Tabela de Conversão

Unidade	Abreviatura	Valor
1 Byte	1 B	8 bits
1 Kilobyte	1 KB	1024 B
1 Megabyte	1 MB	1024 KB
1 Gigabyte	1 GB	1024 MB
1 Terabyte	1 TB	1024 GB
1 Petabyte	1 PB	1024 TB
1 Exabyte	1 ExB	1024 PB
1 Zettabyte	1 ZB	1024 ExB
1 Yottabyte	1 YB	1024 ZB

Exercícios

- a. 512 KB = **524.288** bytes

$$1 \text{ KB} = 1024 \text{ B}$$

$$512 \text{ KB} = 512 \times 1024 \text{ B}$$

$$\mathbf{512 \text{ KB} = 524.288 \text{ B}}$$

- b. 2 GB = **2.147.483.648** bytes

$$1 \text{ GB} = 1.073.741.824 \text{ B}$$

$$2 \text{ GB} = 2 \times 1.073.741.824 \text{ B}$$

$$\mathbf{2 \text{ GB} = 2.147.483.648 \text{ B}}$$

- c. 65.536 B = **64** KB

$$1024 \text{ B} = 1 \text{ KB}$$

$$65536 \text{ B} = \frac{65536}{1024} \text{ KB}$$

$$\mathbf{65.536 \text{ B} = 64 \text{ KB}}$$

- d. 12.288 KB = **12** MB

$$1024 \text{ KB} = 1 \text{ MB}$$

$$12288 \text{ KB} = \frac{12288}{1024} \text{ MB}$$

$$\mathbf{12.288 \text{ KB} = 12 \text{ MB}}$$

- e. $64 \text{ KB} = \mathbf{524.288 \text{ bits}}$
 $1 \text{ KB} = 8192 \text{ bits}$
 $64 \text{ KB} = 64 \times 8192 \text{ bits}$
 $\mathbf{64KB = 524.288 \text{ bits}}$
- f. $19.922.944 \text{ B} = \mathbf{19 \text{ MB}}$
 $1048576 \text{ B} = 1 \text{ MB}$
 $19922944 \text{ B} = \frac{19922944}{1048576} \text{ MB}$
 $\mathbf{19.922.944 \text{ B} = 19 \text{ MB}}$
- g. $8 \text{ GB} = \mathbf{8.589.934.592 \text{ B}}$
 $1 \text{ GB} = 1073741824 \text{ B}$
 $8 \text{ GB} = 8 \times 1073741824 \text{ B}$
 $\mathbf{8 \text{ GB} = 8.589.934.592 \text{ B}}$
- h. $8.192 \text{ MB} = \mathbf{8 \text{ GB}}$
 $1024 \text{ MB} = 1 \text{ GB}$
 $8192 \text{ MB} = \frac{8192}{1024} \text{ GB}$
 $\mathbf{8.192 \text{ MB} = 8 \text{ GB}}$
- i. $256 \text{ KB} = \mathbf{2.097.152 \text{ bits}}$
 $1 \text{ KB} = 8192 \text{ bits}$
 $256 \text{ KB} = 256 \times 8192 \text{ bits}$
 $\mathbf{256 \text{ KB} = 2.097.152 \text{ bits}}$
- j. $2 \text{ TB} = \mathbf{2.097.152 \text{ MB}}$
 $1 \text{ TB} = 1048576 \text{ MB}$
 $2 \text{ TB} = 2 \times 1048576 \text{ MB}$
 $\mathbf{2 \text{ TB} = 2.097.152 \text{ MB}}$
- k. $10 \text{ KB} = \mathbf{81.920 \text{ bits}}$
 $1 \text{ KB} = 8192 \text{ bits}$
 $10 \text{ KB} = 10 \times 8192 \text{ bits}$
 $\mathbf{10 \text{ KB} = 81.920 \text{ bits}}$