A continuació fes els següents exercicis de canvi de base què se't proposen. Perquè es consideri correctament fet has de fer les operacions què se't proposen cada vegada, com s'indica al següent quadre:

|  |  |  |  |  |  |  |  |  |  |
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| 1. Per canviar de decimal a qualsevol altra base: | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
|  | Tenim el número: 654 i el volem expressar en base binaria: | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
| 654 | 2 |  |  |  |  |  |  |  |  |
| 05 | 327 | 2 |  |  |  |  |  |  |  |
| 14 | 12 | 163 | 2 |  |  |  |  |  |  |
| 0 | 07 | 03 | 81 | 2 |  |  |  |  |  |
|  | 1 | 1 | 01 | 40 | 2 |  |  |  |  |
|  |  |  |  | 00 | 20 | 2 |  |  |  |
|  |  |  |  |  | 00 | 10 | 2 |  |  |
|  |  |  |  |  |  | 0 | 5 | 2 |  |
|  |  |  |  |  |  |  | 1 | 2 | 2 |
|  |  |  |  |  |  |  |  | 0 | 1 |
|  |  |  |  |  |  |  |  |  |  |
|  | I per tant queda: 1010001110 | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
| 1. Per canviar de qualsevol altra base a decimal: | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
|  | Tenim el número: 10111000101(2) i el volem expressar en base decimal: | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
|  | 1 | x | 210 | = | 1 | x | 1024 | = | 1024 |
|  | 0 | x | 29 | = | 0 | x | 512 | = | 0 |
|  | 1 | x | 28 | = | 1 | x | 256 | = | 256 |
|  | 1 | x | 27 | = | 1 | x | 128 | = | 128 |
|  | 1 | x | 26 | = | 1 | x | 64 | = | 64 |
|  | 0 | x | 25 | = | 0 | x | 32 | = | 0 |
|  | 0 | x | 24 | = | 0 | x | 16 | = | 0 |
|  | 0 | x | 23 | = | 0 | x | 8 | = | 0 |
|  | 1 | x | 22 | = | 1 | x | 4 | = | 4 |
|  | 0 | x | 21 | = | 0 | x | 2 | = | 0 |
|  | 1 | x | 20 | = | 1 | x | 1 | = | + 1 |
|  |  |  |  |  |  |  |  |  | 1477 |
|  |  |  |  |  |  |  |  |  |  |

Són només taules on s'han eliminat les ratlles què sobren i s'ha posat un tipus de lletra no proporcional, on totes les lletres tenen el mateix espai i per tant només cal afegir espais per fer coincidir un número amb el què es troba a sobre. Si vols, una vegada hagis acabat pots eliminar de les taules les files i columnes què sobren.

**No val fer-ho amb la calculadora, si no estan fets els quadres el consideraré malament fet i el qualificaré com a 0.**

1. Determina com s’expressa el número 100(10) al sistema: binari, octal i hexadecimal:

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| 100 | 2 |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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| 100 | 8 |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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| 100 | 16 |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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1. Determina com s’expressen al sistema decimal els números: AAF(16), 100011101(2), 400(8):

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  | A | x | 162 | = |  | x |  | = |  |
|  | A | x | 161 | = |  | x |  | = |  |
|  | F | x | 160 | = |  | x |  | = | + |
|  |  |  |  |  |  |  |  |  |  |
|  |  | | | | | | | | |
|  | 1 | x | 28 | = |  | x |  | = |  |
|  | 0 | x | 27 | = |  | x |  | = |  |
|  | 0 | x | 26 | = |  | x |  | = |  |
|  | 0 | x | 25 | = |  | x |  | = |  |
|  | 1 | x | 24 | = |  | x |  | = |  |
|  | 1 | x | 23 | = |  | x |  | = |  |
|  | 1 | x | 22 | = |  | x |  | = |  |
|  | 0 | x | 21 | = |  | x |  | = |  |
|  | 1 | x | 20 | = |  | x |  | = | + |
|  |  |  |  |  |  |  |  |  |  |
|  |  | | | | | | | | |
|  | 4 | x | 82 | = |  | x |  | = |  |
|  | 0 | x | 81 | = |  | x |  | = |  |
|  | 0 | x | 80 | = |  | x |  | = | + |
|  |  |  |  |  |  |  |  |  |  |
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1. Determina com s’expressa el número 345(10) al sistema binari, octal i hexadecimal:

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| 345 |  |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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| 345 |  |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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| 345 |  |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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1. Determina com s’expressen en sistema decimal els següents números:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  | Tenim el número: 1F32(16) i el volem expressar en base decimal: | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = | + |
|  |  |  |  |  |  |  |  |  |  |
|  |  | | | | | | | | |
|  | Tenim el número: 11100010(2) i el volem expressar en base decimal: | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = | + |
|  |  |  |  |  |  |  |  |  |  |
|  |  | | | | | | | | |
|  | Tenim el número: 654(8) i el volem expressar en base decimal: | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = | + |
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1. Determina com s’expressa el número 200(10) al sistema: binari, octal i hexadecimal:

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| 200 |  |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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| 200 |  |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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| 200 |  |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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1. Determina com s’expressen al sistema decimal els números: FAA(16), 101100010(2), 500(8):

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = | + |
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|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = | + |
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|  |  | x |  | = |  | x |  | = |  |
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|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = | + |
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1. Determina com s’expressa el número 543(10) al sistema binari, octal i hexadecimal:

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| Resposta: | | | | | | | | | |
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| Resposta: | | | | | | | | | |
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| 543 |  |  |  |  |  |  |  |  |  |
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| Resposta: | | | | | | | | | |
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1. Determina com s’expressen en sistema decimal els números: 23F1(16), 100011101 (2), 456(8):

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = | + |
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|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = | + |
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|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = |  |
|  |  | x |  | = |  | x |  | = | + |
|  |  |  |  |  |  |  |  |  |  |
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