- Lista de exercício aula 5

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1.

a) $1101 + 1011 = 11000$

```
   1 1
   1101
+  1011
  11000
```

b) $10011002 + 1110112 = 100010000$

```
  10011002
+ 1110112
 100010000
```

c) $010111002 + 001110112 = 100110000$

```
  010111002
  001110112
  100110000
```

2. $1010 - 0110 = 0100$

```
   1010
 - 0110
  10100
```

3. 10011 PARA DECIMAL

$(1.2^0) + (1.2^1) + (0.2^2) + (0.2^3) + (1.2^4)$

$16 + 0 + 0 + 2 + 1$

$= 19$

4. $1110 + 0111 = 10101$

$\begin{array}{r} 1110 \\ + \ 0111 \\ \hline 10101 \end{array}$

5. $1001 - 0111 = 0010$

$\begin{array}{r} 1001 \\ 0111 \\ \hline 0010 \end{array}$

6. DECIMAL PARA BINÁRIO (25)

$25 \lfloor 2$
1   $12 \lfloor 2$
   0 $6 \lfloor 2$
     0 $3 \lfloor 2$
       1 $1 \lfloor 2$
         1 0

7. $101 + 110 + 100 = 1111$ //

$$
\begin{array}{r}
101 \\
+ \ 101 \\
\hline
1011 \\
+ \ \ 100 \\
\hline
1111 \text{ //}
\end{array}
$$

8. $11000 - 1011 = 01100$ //

$$
\begin{array}{r}
11000 \\
- \ \ 1011 \\
\hline
01100 \text{ //}
\end{array}
$$

9. BINÁRIO PARA DECIMAL $(101101) =$

$(1.2^5) + (0.2^4) + (1.2^3) + (1.2^2) + (0.2^1) + (1.2^0)$

$32 + 0 + 8 + 4 + 0 + 1$

$= 45$ //

10. $111 + 101 = 1100$ // em DECIMAL $= 12$ //

$$
\begin{array}{r}
111 \\
+ \ 101 \\
\hline
1100 \text{ //}
\end{array}
$$

$(1.2^3) + (1.2^2) + (0.2^1) + (0.2^0)$

$8 + 4 + 0 + 0$

$= 12$