Lista ②

1. Adição

2) 10 + 10

$$
\begin{array}{r}
10 \\
+\ 11 \\
\hline
101_{,,}
\end{array}
$$

b) 100 + 111

$$
\begin{array}{r}
100 \\
+\ 111 \\
\hline
1011_{,,}
\end{array}
$$

c) 100 + 11

$$
\begin{array}{r}
100 \\
+\ 11 \\
\hline
111_{,,} \\
11_{,}
\end{array}
$$

d) 1111 + 11

$$
\begin{array}{r}
1 \\
1111 \\
+\ 11 \\
\hline
10010
\end{array}
$$

e) 101 + 101

$$
\begin{array}{r}
101 \\
+101 \\
\hline
1010_{,,}
\end{array}
$$

2· Subtração

a) $101 - 11$

$$
\begin{array}{r|r}
\overset{0\ \ 10}{\cancel{1}01} & 5 \\
-\ 11 & -3 \\
\hline
010 & 2
\end{array}
$$

b) $1111 - 11$

$$
\begin{array}{r|r}
1111 & 15 \\
-\ \ 11 & -3 \\
\hline
1100 & 12
\end{array}
$$

c) $1011 - 10$

$$
\begin{array}{r|r}
1011 & 11 \\
-\ 10 & -2 \\
\hline
1001 & 9
\end{array}
$$

d) $1111 - 111$

$$
\begin{array}{r|r}
1111 & 15 \\
-\ 111 & -7 \\
\hline
1000 & 8
\end{array}
$$

e) $1011 - 111$

$$
\begin{array}{r|r}
\overset{0\ \ 10}{\cancel{1}011} & 11 \\
-\ 111 & -7 \\
\hline
100 & 4
\end{array}
$$

3- Multiplicação

a) 11 × 11

```
      11    | 3
     × 11   | × 3
     ———    | ——
     1 1 1  | .9
    1 1  +  |
    ————     |
   1 0 0 1   |
```

b) 1000 × 11

```
   1000   | 8
   × 11   | × 3
   ————   | ——
   1 0 0 0  | 24  ,,
  1 0 0 0 + |
  —————      |
  1 1 0 0 0  |
```

c) 101 × 10

```
   101   | 5
   × 10  | × 2
   ———   | ——
   0 0 0  | 10  ,,
  1 0 1 + |
  ————     |
  1 0 1 0  |
```

d) 1110 × 10

```
   1110    | 14
   × 10    | × 2
   —————   | ——
  1 1 1 0 0 | 28  ,,
```

e) 1111 × 11

```
     1111    | 15
     × 11    | × 3
     ————    | ——
    1 1 1 1 1 | 45  ,,
   1 1 1 1 +  |
   ——————      |
  1 0 1 1 0 1  |
```