AEV: Séance 4

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1 Exercice 1

1.1 Question 1

Infixé

```
T = (A + B) * ((C + D) - (E * F))
```

Préfixé

```
T = * + A B - + C D * E F
```

Postfixé

```
T = AB + C D + E F * - *
```

1.2 Question 2

ASM

```
LIT     E
LIT     F
IP      2105
LIT     C
LIT     D
IP      2103
IP      2104
LIT     A
LIT     B
IP      2103
IP      2105
```

Binaire

```
0010eeeeeeeeeeee
0010ffffffffffff
1100110000000101
0010cccccccccccc
0010dddddddddddd
1100100000000011
```

```
1100100000000100
0010aaaaaaaaaaaa
0010bbbbbbbbbbbb
1100100000000011
1100110000000101
```

1.3   Question 3

Infixé

```
(A + B ) * (A - B)
```

Postfixé

```
A B + A B - *
```

ASM

```
LIT     A
LIT     B
IP      2103
LIT     A
LIT     B
IP      2104
IP      2105
```

Binaire

```
0010aaaaaaaaaaaa
0010bbbbbbbbbbbb
1100100000000011
0010aaaaaaaaaaaa
0010bbbbbbbbbbbb
1100100000000100
1100110000000101
```

2   Exercice 2

Infixé

$$
\begin{aligned}
y &= (a2 * c1 - a1 * c2)/(a2 * b1 - a1 * b2) \\
x &= (c1 - b1 * y)/a
\end{aligned}
$$

Postfixé

$$
\begin{aligned}
y &= a2 \; c1 \; * \; a1 \; c2 \; * \; - \; a2 \; b1 \; * \; a1 \; b2 \; * \; - \; / \\
x &= b1 \; y \; * \; c1 \; - \; a \; /
\end{aligned}
$$

pile : $a1$, $b1$, $c1$, $a2$, $b2$, $c2$.
rot

pile : $c1$, $a1$, $b1$, $a2$, $b2$, $c2$.
store dans registre A
pile : $a1$, $b1$, $a2$, $b2$, $c2$.
rot
pile : $a2$, $a1$, $b1$, $b2$, $c2$.
read from A
pile : $c1$, $a2$, $a1$, $b1$, $b2$, $c2$.
mul(0,1) $mul1$
pile : $mul1$, $c1$, $a2$, $a1$, $b1$, $b2$, $c2$.
store into A
pile : $c1$, $a2$, $a1$, $b1$, $b2$, $c2$.
rot
pile : $a1$, $c1$, $a2$, $b1$, $b2$, $c2$.

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