

1.15

$$\begin{array}{r}
 1) \quad 47 \mid 3 \\
 2 \mid 15 \mid 3 \\
 \quad 0 \mid 5 \mid 3 \\
 \quad \quad 2 \mid 1 \mid 3 \\
 \quad \quad \quad 1 \mid 0
 \end{array}$$

47 s'écrit $\overline{1202}$ en base 3, car $47 = 1 \cdot 3^3 + 2 \cdot 3^2 + 0 \cdot 3^1 + 2 \cdot 3^0$.

$$\begin{array}{r}
 2) \quad 49 \mid 2 \\
 1 \mid 24 \mid 2 \\
 \quad 0 \mid 12 \mid 2 \\
 \quad \quad 0 \mid 6 \mid 2 \\
 \quad \quad \quad 0 \mid 3 \mid 2 \\
 \quad \quad \quad \quad 1 \mid 1 \mid 2 \\
 \quad \quad \quad \quad \quad 1 \mid 0
 \end{array}$$

49 s'écrit $\overline{110001}$ en base 2, car $49 = 1 \cdot 2^5 + 1 \cdot 2^4 + 0 \cdot 2^3 + 0 \cdot 2^2 + 0 \cdot 2^1 + 1 \cdot 2^0$

$$\begin{array}{r}
 3) \quad 5000 \mid 8 \\
 0 \mid 625 \mid 8 \\
 \quad 1 \mid 78 \mid 8 \\
 \quad \quad 6 \mid 9 \mid 8 \\
 \quad \quad \quad 1 \mid 1 \mid 8 \\
 \quad \quad \quad \quad 1 \mid 0
 \end{array}$$

5000 s'écrit $\overline{11610}$ en base 8, car $5000 = 1 \cdot 8^4 + 1 \cdot 8^3 + 6 \cdot 8^2 + 1 \cdot 8^1 + 0 \cdot 8^0$.