

1. $y = 48$ 2. $x = 89$

3. $48_2 = 110000$

$$\begin{array}{r} 48 \overline{) 2} \\ 48 \overline{) 24} \quad 2 \\ \underline{0} \quad 24 \overline{) 12} \quad 2 \\ \underline{0} \quad 12 \overline{) 6} \quad 2 \\ \underline{0} \quad 6 \overline{) 3} \quad 2 \\ \underline{0} \quad 3 \overline{) 1} \quad 2 \\ \underline{0} \end{array}$$

4. $89_{10} = 1011001$

$$\begin{array}{r} 89 \overline{) 88} 2 \\ \underline{88} 44 2 \\ 0 22 2 \\ \underline{22} 11 2 \\ 0 10 5 2 \\ 1 4 1 2 \\ 1 0 1 2 \end{array}$$

$$\begin{array}{r} 5. \quad \begin{array}{r} 1011001 \\ 110000 \\ \hline 0001001 \end{array} \end{array}$$

6. ~~110~~ 1011001
- 110000

101001

7.
$$\begin{array}{r|l} 1011001 & 110000 \\ \underline{110000} & 1 \\ \hline 1011001 & \end{array}$$

[illegible]

g. $K = 40$

$$10, 40_{16} = 28$$

$$\begin{array}{r} 40 \overline{) 32} \quad \overline{) 16} \\ \underline{32} \quad \underline{16} \\ 8 \quad 0 \end{array}$$