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Exercises - OAC

1)
$$\begin{array}{r} 10110 \\ - 01101 \\ \hline 01001 \end{array} + \begin{array}{r} 10010 \\ - 1 \\ \hline 10011 \end{array} \rightarrow \begin{array}{r} 10110 \\ - 10011 \\ \hline 01001 \end{array} \quad 01001 = 9$$

2)
$$\begin{array}{r} 11000 \\ - 01011 \\ \hline \end{array} \begin{array}{r} 24 \\ - 17 \\ \hline +1 \end{array} \rightarrow \begin{array}{r} 11000 \\ - 10101 \\ \hline 01101 \end{array} \rightarrow 01101 = 13$$

3)
$$\begin{array}{r} 10100 \\ - 00110 \\ \hline \end{array} \rightarrow \begin{array}{r} 10100 \\ - 11001 \\ \hline +1 \end{array} \rightarrow \begin{array}{r} 10100 \\ - 11010 \\ \hline 10110 \end{array} \rightarrow 01110 = 14$$

4)
$$\begin{array}{r} 11110 \\ - 10011 \\ \hline \end{array} \rightarrow \begin{array}{r} 11110 \\ - 01100 \\ \hline +1 \end{array} \rightarrow \begin{array}{r} 11110 \\ - 01101 \\ \hline 101011 \end{array} \rightarrow 01011 = 11$$

5)
$$\begin{array}{r} 101000 \\ - 010100 \\ \hline \end{array} \rightarrow \begin{array}{r} 101000 \\ - 101011 \\ \hline +1 \end{array} \rightarrow \begin{array}{r} 101000 \\ - 101100 \\ \hline 1010100 \end{array} = 010100 = 20$$

6)
$$\begin{array}{r} 101111 \\ - 010010 \\ \hline \end{array} \rightarrow \begin{array}{r} 101111 \\ - 101101 \\ \hline +1 \end{array} \rightarrow \begin{array}{r} 101111 \\ - 101110 \\ \hline 101101 \end{array} \rightarrow 011101 = 29$$

D S T Q Q S S
D L M M J V S

$$7) \begin{array}{r} 110110 \\ 011010 \\ \hline 100110 \\ +1 \\ \hline 100111 \end{array} \rightarrow \begin{array}{r} 110110 \\ 100110 \\ \hline 011100 \end{array} = 011100 = 28$$

$$8) \begin{array}{r} 100000 \\ 001101 \\ \hline 100000 \\ 110010 \\ \hline 100000 \\ 110011 \\ \hline 010011 \end{array} \rightarrow \begin{array}{r} 100000 \\ 110011 \\ \hline 010011 \end{array} = 010011 = 19$$

$$9) \begin{array}{r} 111001 \\ 101100 \\ \hline 111001 \\ 010011 \\ \hline 111001 \\ 010100 \\ \hline 001101 \end{array} \rightarrow \begin{array}{r} 111001 \\ 010100 \\ \hline 001101 \end{array} = 001101 = 13$$

$$10) \begin{array}{r} 01100 \\ 00111 \\ \hline 01100 \\ 11000 \\ \hline 01100 \\ 11001 \\ \hline 00101 \end{array} \rightarrow \begin{array}{r} 01100 \\ 11001 \\ \hline 00101 \end{array} = 00101 = 5$$

Multiplicação

$$1. \begin{array}{r} 101 \\ 110 \\ 000 \\ 101 \\ \hline 10102 = 10 \end{array}$$

$$2) \begin{array}{r} 1101 \\ 111 \\ \hline 11101 \\ 11011 \\ \hline 100111 = 39 \end{array}$$

$$3) \begin{array}{r} 1010 \\ \times 101 \\ \hline 1010 \\ 0000 \\ 10101 \\ \hline 110010 \\ \hline 50 \end{array}$$

2) Divisão:

$$\begin{array}{r} 1) \ 1101010 \\ 1011111001 \\ \hline 010 \\ \hline 10 \\ \hline 0010 \\ \hline 0 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 2) \ 101010110 \\ 1101 \\ \hline 1000 \\ \hline 110 \\ \hline 010 \end{array}$$

$$\begin{array}{r} 3) \ 1000001 \ (101) \\ 101 \quad 11101 \\ \hline 111 \\ \hline 101 \\ \hline 1000 \\ \hline 101 \\ \hline 011 \end{array}$$