

COMPUTER SCIENCE 20, SPRING 2014
Module #8 (Logic and Computers) - Check-in questions
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1. Perform the following operations in binary:

(a) $11011_2 + 11010_2$

(b) $10101_2 - 1010_2$

(c) check your answers by performing the same operations in decimal.

Solution:

$$\begin{array}{r} \\ (a) \\ \hline \end{array}$$

$$\begin{array}{r} \\ (b) \\ \hline \end{array}$$

(c) To perform the same operation in decimal it is important for us to know each of the term in the numbers

$$2^0 = 1, 2^1 = 2, 2^2 = 4, 2^3 = 8, 2^4 = 16, \dots$$

$$\begin{array}{r} \Rightarrow = \\ + \Rightarrow = \\ \hline \Rightarrow = \end{array}$$

$$\begin{array}{r} \Rightarrow \\ + \Rightarrow \\ \hline \Rightarrow \end{array}$$