2) a

$a = 01011010 = 90_{10}$

$b_{10} = 1223_{10} = 10011000111$

$Z = 01000111 = 71$

- $01011010 + 01000111 = 10100001$

2) a) a − Z $01011010 - 01000111$

$01000111 \rightarrow 10111000 + 1 = 10111001$

$01011010 + 10111001 = 100010011$ – positiv Ergebnis

19_{10}

- $a - Z = 00010011 = 19_{10}$ 90 − 71 = 19

2c) 71 − 90 = −19

Z − a $01000111 - 01011010$

$01011010 \rightarrow 10100101 + 1 = 10100110$

$01000111 + 10100110 = 11101101$ – negativ Ergebniss = Stellenkomplement

$11101101 + 00010010 + 1 = 00010011 = -19_{10}$