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CODE

```
LDI     R₁, A
LDI     R₂, B.
LDI     R₃, C
LDI     R₄, D.


MOV     R₅, R₁.
ADD     R₅, R₃.


MOV     R₆, R₂
ADD     R₆, R₄.
```

Theory

Here, $X = A + jB$.

$Y = C + jD$

$\downarrow$ $\downarrow$

8 bit   8 bit.

$Z = X + Y$

$= (A+C) + j(B+D) = E + jF$

$R_1 + R_3$ $R_2 + R_4$ $\}$ Registers.

$\downarrow$ $\downarrow$

R_5 R_6.

Result is stored in R_5 & R_6.

(registers)

E is stored in R_5

& F is stored in R_6.