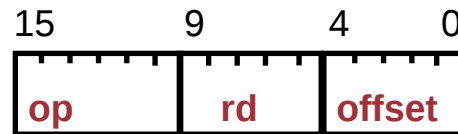
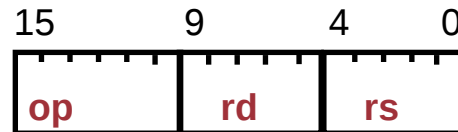


load / store:



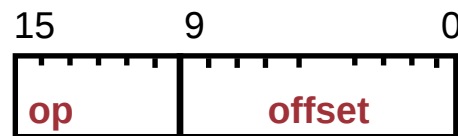
load: $[rd] \leftarrow [Y+offset]$
St: $[Y+offset] \leftarrow [rd]$

arithmetic:



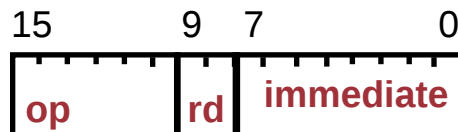
$[rd] = [rd] + [rs]$

Branch:



$[PC] \leftarrow [PC] + offset$

Load constant:



$[rd] = immediate$

Single Cycle Datapath with Control Unit

