

- (1) ○ $R9 \leftarrow R9 \vee R8$
- (2) ~~○~~ $R8 \leftarrow \text{lsh}(R1 \wedge R2)$
- (3) ~~○~~ $R5 \leftarrow R6 + R12$
- (4) ○ $R9 \leftarrow 2$
- (5) ○ $R0 \leftarrow R1 - R2$
- (6) ~~○~~ $\text{rsh}(1); \text{ if } Z \text{ goto } 5$
- (7) ○ $\text{MAR} \leftarrow \text{MBR}; \text{ rd}$
- (8) ○ $R3 \leftarrow \text{lsh}((\neg R2) + R3))$
- (9) ~~○~~ $\text{goto } .R4$
- (10) ~~○~~ $R1 \leftarrow (R2 \wedge 1); \text{ if } Z \text{ goto nextStep}$
- (11) ○ $\text{MBR} \leftarrow R1; R5 \leftarrow R0 + R1$
- (12) ~~○~~ $\text{MAR} \leftarrow R1; \text{ MBR} \leftarrow R0 + R1; R2 \leftarrow R0 + R1; \text{ wr}$