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; MSP430 Assembler Code Template for use with TI Code Composer Studio
;
; .cdecls C,LIST,"msp430.h" ; Include device header file
; .data
Result1: .space 2
Result2: .space 2
; .text ; Assemble into program memory
.retain ; Override ELF conditional linking
; and retain current section
.retainrefs ; Additionally retain any sections
; that have references to current
; section

RESET mov.w #_STACK_END,SP ; Initialize stackpointer
StopWDT mov.w #WDTPW|WDTHOLD,&WDTCTL ; Stop watchdog timer

; call subroutine Times6
mov.w #6, R12 ; prepare input for Times6
call #Times6 ; call subroutine Times6
mov.w R13, &Result1 ; move result from Times6 to variable Result1

; call subroutine Times6
mov #24, R12 ; prepare input for Times6
call #Times6 ; call subroutine Times6
mov.w R13, &Result2 ; move result from Times6 to variable Result1

Loop: jmp Loop

Subroutine: Times6

; Input: R12
; Output: R13 : R12 * 6

Times6:
mov.w #0, R13
add.w R12, R13
add.w R12, R13
add.w R12, R13
add.w R12, R13
add.w R12, R13
add.w R12, R13
ret

; Stack Pointer definition
.
.global _STACK_END
.sect .stack

; Interrupt Vectors
.sect ".reset" ; MSP430 RESET Vector
.short RESET