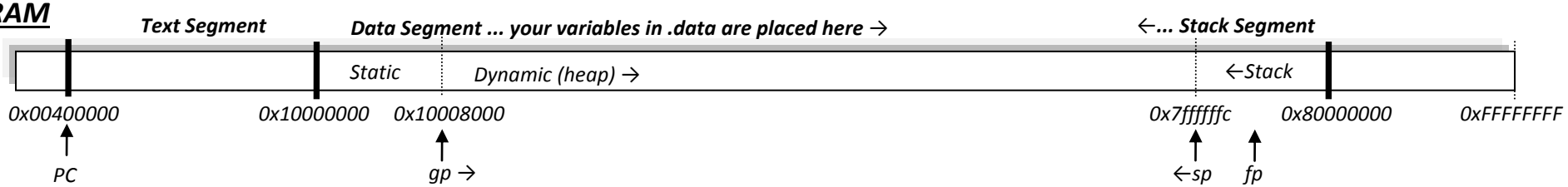
RAM



CENTRAL PROCESSING UNIT (CPU)

Pointers

$sp	pointer to stack
$fp	pointer to frame base
$gp	pointer to global scope

Reserved

$ra	return address after a jal
$at	assembler temporary
$k0	used by kernel
$k1	used by kernel

$zero	00000000000000000000000000000000

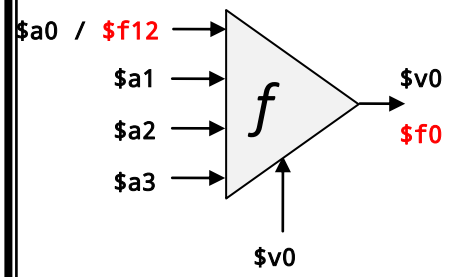
--- Caller saved ----

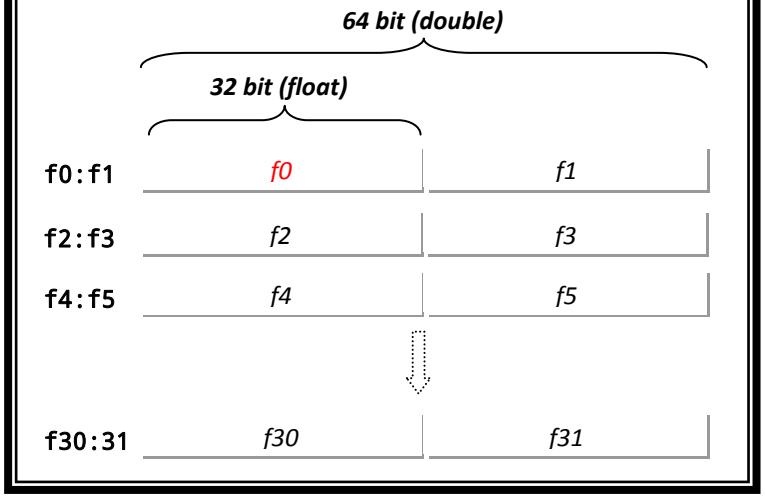
$t0	temp
$t1	loop variable i
$t2	loop variable j
$t3	loop variable k
$t4	
$t5	
$t6	
$t7	
$t8	
$t9	

--- Callee saved ---

$s0	input: integer, float etc
$s1	input: base pointer of array 1
$s2	input: base pointer of array 2
$s3	input: base pointer of array 3
$s4	input: length of array 1
$s5	input: length of array 2
$s6	input: length of array 3
$s7	output

MARS/MIPS System calls



v0	function
1	print int
2	print float
3	print double
4	print string
5	read int
6	read float
7	read double
8	read string
9	sbrk
10	exit

COPROCESSOR 1 (Arithmetic):