**Exercise #1:** Given the MIPS Instruction set, convert the following MIPS assembly code into Java-like code. Note that “bgt” instruction is for “branch greater than” and is used to jump to a label, if a register value is more than the provided constant. You are expected to consider the following register assignment while writing Java code.

|  |  |
| --- | --- |
| **MIPS Register** | **Java Variable** |
| $1 | i |
| $2 | tmp |
| $3 | sum |

The MIPS Assembly Code is given below

|  |
| --- |
| and $1,$1,$0     and $2,$2,$0     and $3,$3,$0 label:     bgt $1,14,exit     multi $2,$1,2     add $3,$3,$2     addi $1,$1,1     j label exit |

**Exercise #2:** Using the Little Man Computer Simulator ([http://peterhigginson.co.uk/LMC/Links to an external site.](http://peterhigginson.co.uk/LMC/)), write LMC assembly programs to compute the following expressions:

* e = (a+b)–(c+d)
* z = 3x + y
* c = a2 + b2

Have a look at the above link to read about the LMC and see the instruction set of LMC with some examples.