►Solution◄

Question 1: (10 points)

Write down the meaning and effect of the following MIPS instructions:

a. (5 points) `div $s, $t`

> **Solution:** Divides `$s` by `$t` and stores the quotient in `$LO` and the remainder in `$HI`.

b. (5 points) `lui $t, imm`, where `imm` represents an immediate value

> **Solution:** `lui` stands for load upper immediate. This instruction left shifts `imm` by 16 bits and stores the result in register `$t`. The lower 16-bits are zeros.