

Name: Date:

TICK and checked in the box column either TRUE or FALSE for each statement based on your understanding of processor design characteristics.

Characteristics design description		TRUE	FALSE
1	<i>RISC processors feature variable-length instructions, meaning some instructions take up more memory space than others.</i>	☐	☐
2	<i>CISC instructions are designed to complete their entire execution sequence within a single clock cycle.</i>	☐	☐
3	<i>RISC architectures require more general-purpose registers than CISC architectures because they cannot manipulate data directly in main memory.</i>	☐	☐
4	<i>Pipelining is significantly more difficult to implement efficiently on a CISC processor than on a RISC processor.</i>	☐	☐
5	<i>A major advantage of CISC processors is their low power consumption, making them ideal for mobile devices like smartphones.</i>	☐	☐
6	<i>RISC architectures put more burden on the software compiler to optimize code efficiency, whereas CISC relies on complex hardware circuitry.</i>	☐	☐
7	<i>CISC architectures require explicit, separate LOAD and STORE instructions to safely transfer data between memory and registers before any calculation.</i>	☐	☐
8	<i>RISC instructions are simple, a high-level language program compiled for a RISC processor will generally result in more lines of machine code than for a CISC.</i>	☐	☐
9	<i>CISC processors typically support a narrower, more restricted variety of addressing modes compared to RISC processors.</i>	☐	☐
10	<i>CISC processors require a larger physical chip area for execution decoding circuitry compared to RISC processors with an equivalent process node.</i>	☐	☐