Quiz 1 Solution

What is the clock cycle time of a processor with a clock frequency of 4 GHz?

- 250ps
- 25ns
- 400ps
- 4ns

What frequency is a processor operating at, that has a clock cycle time of 500us?

- 2KHz
- 500Hz
- 20Hz
- 5MHz

You want to reduce the power consumption of a micro processor.
Assume you can improve one of the chip properties below by reducing it by 2x. Which one would you choose?

- Supply Voltage
- Current
- Capacitance
- Clock Frequency

Assume the code sequence that uses instruction types A, B, C. Given below is the instruction count of each instruction and the CPI of each instruction. What is the average CPI of the sequence?

class	A	B	C
CPI for class	1	4	2
IC	4	2	6

- 2
- 7
- 12
- 24

What advantage do CISC architectures have over RISC?

- Better code density
- Lower CPI
- Higher Clock Frequency
- Less complex to implement