

**SoC Chapter 1: Introduction**  
**Modern SoC Design on Arm**  
**End-of-Chapter Exercises 0.4**

**Q1 Bus sizes**

What is the addressable space of an A32D32 processor in terms of bytes and words?

**Q2 Address decoding and alignment**

Why is the register space of an I/O device typically mapped so that its base address is a multiple of its length?

**Q3 What is a microcontroller?**

What are the differences between a PC, a microprocessor, a SoC and a microcontroller? Are they clearly distinct?

**Q4 Address Spaces**

How could some peripheral devices be made unaddressable by some cores?