

1. Use the STM32L0x1 Reference Manual and the STM32L031K6 Data Sheet on the class web site to determine the memory address of each of the following:

A) GPIOB Mode Register

B) GPIOA Speed Register

C) GPIOA Input Data Register

D) GPIOB Output Data Register

2. Write the assembly code necessary to make PA3 input and PA4 output.

3. Many of the Thumb2 instructions have an *s* on them as in `movs`, `bics`, `orrs`. What is the purpose of the *s*?

4. What is the difference between the following instructions?

```
movs r1, [r2]
```

```
movs r1, r1
```

5. The ARM instruction set has only two instructions that work with memory. What are they?