**LAB1 question**

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**Question #1: What happened to the blink rate? Why?**

**The blink rate increases, when we decrease the delay time .**

**The blink rate decreases, when we increase the delay time.**

**Question #2: how many bits wide is the default ADC data output in the MK20DX256?**

**16 bits from data sheet of Teensy 3.1 / 3.2**

**Question #3: How many bits do you need for the delay, and how do you calculate the delay?**

**we only need 10 bits for delay (the max value read in debug board is 1023 in decimal, which is 2^10 = 2’b1111111111)， analogRead divides total voltage 5V to 1024 units, so it is 0.0049 V/unit. The delay will be 0.0049 times the read voltage.**

**Question #4: How do you change the sample width (number of bits in the digital output of the ADC)?**

**We can use the *analogReadResolution()* to extend more than default 10 bits, but less or equal to 16 bits(max bits wide of ADC). We can also set less than 10 bits.**