

1. What is the difference between a parallel and serial interface?
  - a. Serial puts data over one wire with high and lows using time to turn into 0's and 1's, parallel uses multiple wires for each bit
2. What is the difference between a synchronous and asynchronous interface?
  - a. Synchronous systems use a separate "clock" signal to notify the receiver when to sample; the data capture often synchronizes to a transition like a rising or falling edge of the clock
  - b. Asynchronous systems operate without a physical clock signal. Some asynchronous communications encode a virtual clock within the transitions of the data, while others estimate the time intervals that data should arrive
3. What is one thing that a communication protocol does?
  - a. The last task is interpreting the raw data into useful instructions or information for the user's application.
4. What does the baud rate of a signal mean?
  - a. both the transmitter and receiver must operate on a predetermined period between bits
5. What register in the USART would you use to enable the transmitter hardware?
  - a. USART\_CR1
6. Does the transmit (TX) line of the USB-USART cable connect to the transmit (TX) or receive (RX) of the STM32F0?
  - a. USB-UART Transmit (TX) →STM32F0 Receive (RX)