

1. What is the difference between a parallel and serial interface?

A parallel interface transmits an entire word (or at the very least, multiple bits) at the same time in *parallel*. A serial interface only transmits a single bit at a time.

2. What is the difference between a synchronous and asynchronous interface?

A synchronous interface uses a clock signal to synchronize communication between sender and receiver. An asynchronous interface does not have a physical clock signal, but may instead either estimate the time intervals that data should arrive at or encodes the clock into the signal itself.

3. What is one thing that a communication protocol does?

A communication protocol ensures that communicating devices know how to interpret the incoming bit patterns.

4. What does the baud rate of a signal mean?

The baud rate of a signal is the number of bits per second that the sender transmits.

5. What register in the USART would you use to enable the transmitter hardware?

Write a 1 to the USART\_CR1 register's bit 0 (UE)

6. Does the transmit (TX) line of the USB-USART cable connect to the transmit (TX) or receive (RX) of the STM32F0?

The TX line of the USB-USART cable connects to the RX line of the STM32F0 and vice-versa.