A lot of these are written down in the ipad

2.

Code executes past this point as the interupt timers temporarily stop the while loop and run their interupt code, and afterwards the program returns to the loop.

3.

The microcontroller performs an interupt when the timer peripheral counts up to a specific value. In this case it counts to an amount that matches the Hz of the Cpu. and since it counts at the same frequency you end up with it taking 1 second and half a second

in configuration of the 2 32-bit timers, it is using G\_UI32sysclock

It using the clock as the period/ value to check at, therefore it will take exactly one full cycle matching the clock cycle

meaning the timer will go for exactly 1 second (the frequency/period of timer is the same as the frequency of the cpu)

hz is cycle's per second

period is the time it takes a cycle to happen

4. The interrupt with the highest prority will occur first (highest being 0 then going -1,-2,-3) only 8 levels of priority

Task B:

Hardware is if the perihperal triggers the interupt, but software if you manually set the interupt bit and trigger an interupt that way

1. Software as the all of the interrupts are manual as they are all triggered through code not through the perihoerals
2. Tail chaining is where once you finish an interupt you go straight to the next interupt without unstacking and stacking the registers (so before going back to main then immediately being sent back to an interupt) By simply doing the interupts one after another without doing this you save time/
3. (Haven’t changed the code because I don’t see why I need to, actually do it on day) But increasing the priority of GPIOB would be to make the number of the other interrupts higher.

Task c

1. A watchdog timer is good for if you are locked-out of your system or something has gone wrong, so it can automatically reset the system or do some other task if the timer is not reset. Like if the messenger doesn’t send a message raise an alarm that something is wrong and do something about it. Because if the watchdog interrupt returns instead of being cleared it resets the program