Answer Key

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Document conventions

Convention	Usage	Example
`Courier New`	Displays code and text commands	`CY_ISR_PROTO(MyISR);` `make build`
Italics	Displays file names and paths	*sourcefile.hex*
[**bracketed, bold**]	Displays keyboard commands in procedures	[**Enter**] or [**Ctrl**] [**C**]
Menu > Selection	Represents menu paths	**File > New Project > Clone**
Bold	Displays GUI commands, menu paths and selections, and icon names in procedures	Click the **Debugger** icon, and then click **Next**.

1.1 Chapter 6

1.1.1 Exercise 1

1) What is the purpose of the call to the function `Cy_SysEnableCM4`, in the CM0+'s code?
   This function call enables the CM4 CPU.
2) Why do both of the processors need to call the function `__enable_irq`?
   Because each CPU has its own NVIC.
3) Where is the file *ipc_def.h* saved on your disk?
   In *<ApplicationDirectory>/shared/include/ipc_def.h*

1.1.2 Exercise 2

1) In the file *<ApplicationDirectory>/shared/source/COMPONENT_CM0P/ipc_communication_cm0p.c*, what is the purpose of the function `user_ipc_pipe_isr_cm0`? When does this function get called?
   This function gets called whenever a message is received by the CM0+ from the CM4. Its purpose is to call the callback function associated with the received client ID.
2) The macros `USER_IPC_PIPE_EP_ADDR_CM0` and `USER_IPC_PIPE_EP_ADDR_CM4` correspond to which endpoints in the array of endpoint structures?
   Endpoints 2 and 3.
3) When the CM4 receives a message from the CM0+, what callback(s) are run?
   The `user_ipc_pipe_isr_cm4` callback is run, then the `cm4_msg_callback` callback is run.

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