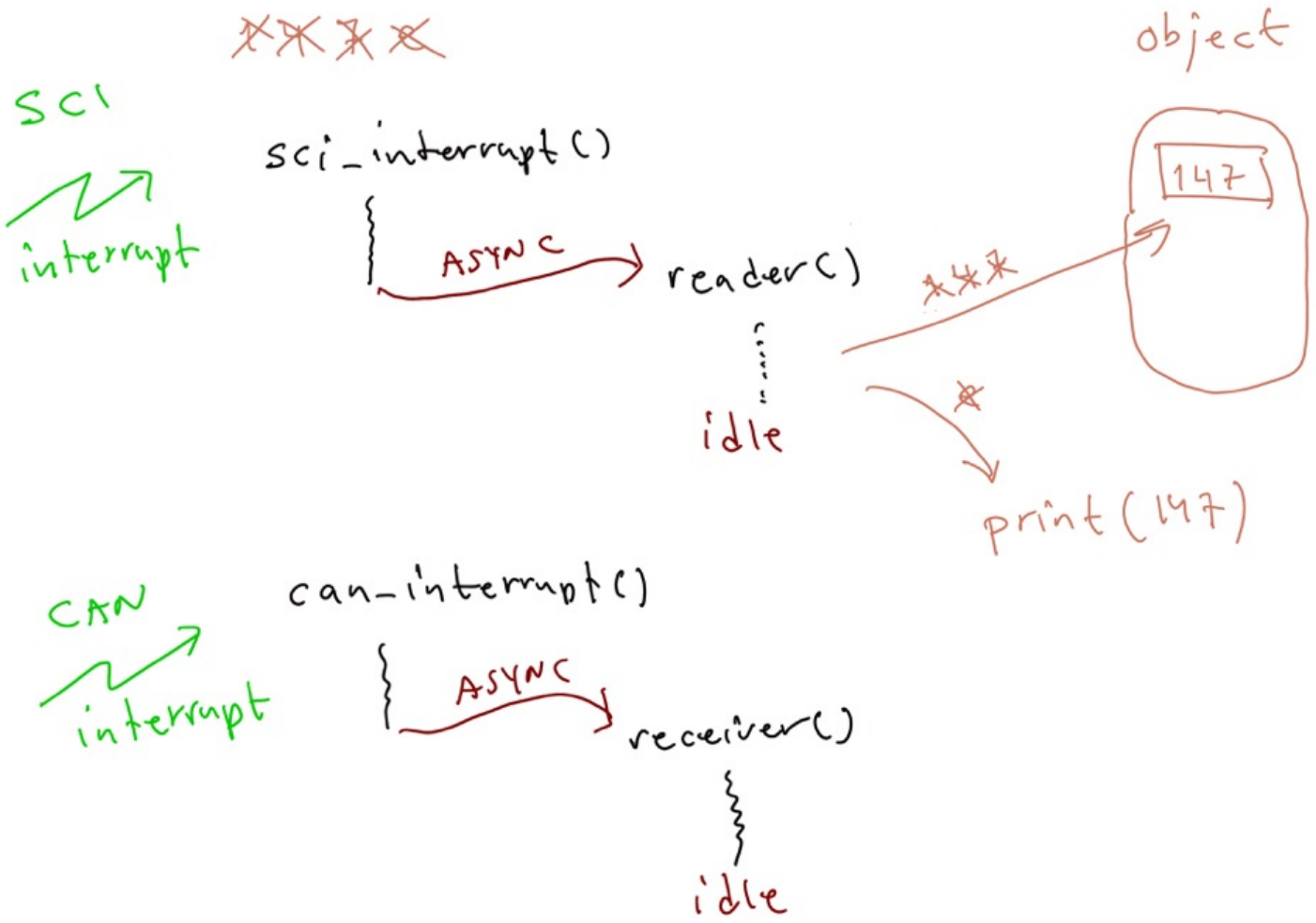
Exercise #2 – blackboard scribble



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SCI integer parser

```
#include "TinyTimber.h"
#include "sciTinyTimber.h"   <- SCI device driver functions
#include <stdlib.h>          <- to use atoi() function
#include <stdio.h>           <- to use snprintf() function

typedef struct {
  Object super;
  int index;                 <- next place to store typed character
  char buffer[50];           <- to store typed character
} App;

App app = {initObject(), 0, {0}};
void reader(App *, int);

Serial sci0 = initSerial(SCI_PORT0, &App, reader);
```

call-back information to SCI driver

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```
void reader (App * self, int c) {        typed character on console keyboard
    switch (c) {
        case '0' ... '9':
        case '-':                        } valid characters for (decimal) integer
            self->buffer[self->index++] = c;
            break;
        case 'e':                        ← end of integer delimiter
            self->buffer[self->index] = '\0';   ← terminate C character string
            int value = atoi(self->buffer);     ← convert string to integer data type
            self->index = 0;             ← clean input buffer
            char snbuf[100];
            snprintf(snbuf, 100, "Entered integer: %d\n", value);
            SCI_WRITE(&sci0, snbuf);     ← output text to console
            break;
        default:
            break;
    }
}
```