

Com S 327
Fall 2018
Midterm Key and Rubric

1. (a) You're plastic!
(b) stop trying to make "fetch" happen
 -1 no quotes
 -2 wrong order
(c) On Saturdays we wear pink.
 -1 miscount
(d) Error
 -4 "I just moved here."
(e) No output
 -4 Error or print backwards
(f) Error
 -3 print backwards
2. (a) `void swap(int *a, int *b)`
 {
 int t;

 t = *a;
 *a = *b;
 *b = t;
 }

 2 points each: type of a, type of b, each of 3 lines
 -2 't' is a pointer

 (b) `void freeplusplus(void **p)`
 {
 free(*p);
 *p = NULL;
 }

 4 points type of p
 3 points each line

```

(c) char *strndup(const char *s, size_t n)
{
    char *o;
    int i;

    if ((o = malloc(n + 1))) {
        for (i = 0; i < n && *s; i++, s++) {
            o[i] = *s;
        }
        o[i] = '\0';
    }

    return o;
}

```

4 points each: call malloc(), check malloc(), copy s, assign NULL, return string

3. (a) list_item_t *
- (b) int32_t
- (c) uint32_t *
- (d) list_item_t
- (e) list_item_t
- (f) int
- (g) int32_t (*)(const void *, const void *)
- (h) void *
- (i) list_t
- (j) char

No partial credit.

Extra Credit. Mathlete