Com S 229
Spring 2015
Midterm Exam Answer Key

1. (30 pts; 5 each)

    (a) I know what we're gonna do today.

    (b) Phineas and Ferb are building a roguelike game!!

    (c) Lindana

    (d) Segmentation fault

    (e) no output

    (f) Segmentation fault

2. (40 pts; 20 each)

    (a)
```
char *strdup(const char *s)
{
  char *o;
  int i;

  if ((o = malloc(strlen(s) + 1))) {
    for (i = 0; s[i]; i++) {
      o[i] = s[i];
    }
    o[i] = '\0';
  }

  return o;
}
```

(b)
```
char *strchr(const char *s, int c)
{
  while (*s && *s != c)
    s++;

  if (*s) {
    return (char *) s;
  } else {
    return NULL;
  }
}
```

3. (30 pts; 3 each)

   (a) `list_item_t *` or `struct list_item *`

   (b) `int32_t`

   (c) `int32_t *`

   (d) `list_item_t` or `struct list_item`

   (e) `list_item_t` or `struct list_item`

   (f) `int`

   (g) `list_item_t` or `struct list_item`

   (h) `void *`

   (i) `list_t` or `struct list`

   (j) `char`

Extra Credit. (1 pt)

   `IOWA STATE!`