Example 1

```c++
int factorial(int n)
{
    if (n == 0)
        // What should we return here?
    else
        return n * factorial(n - 1);
}

// What is the base case and what is the recursive case
```

Example 2

```c++
void count_down(int n)
{
    if (n == 0)
        cout << "Blastoff!" << endl;
    else {
        cout << n << endl;
        // What should we call here?
    }
}

// What is the base case and what is the recursive case?
```

Example 3

```c++
int count = 17;
int *ptr = &count;
cout << *ptr << endl;
cout << count << endl;

// What will be printed to the screen?
```

Example 4

```c++
int count = 17;
int *ptr;
ptr = &count;
*ptr = *ptr + 5;
cout << *ptr << endl;
cout << count << endl;

// What will be printed to the screen?
```

Example 5

```c++
char ans;
cout << "What is your answer? (y/n)\n";
```
cin >> ans;
int *ptr = &ans;

// What is wrong with this code?

**Example 6**
int w = 205;
int *wptr;
wptr = &w;

// How would you print the pointer’s address?
// How would you print the pointer’s target?
// How would you print the pointer’s value?

**Example 7**
double *dptr;  // Line 1
dptr = new double;  // Line 2
cin >> *dptr;  // Line 3
delete dptr;

// At what line does the pointer have a target?
// At what line does the pointer have an address?
// At what line does the pointer have a value?

**Example 8**
We have a struct called Appointment to represent a doctor’s appointment, with variables name, email, cancelled and time. Time is also a struct, which is a struct with hour, minutes, and AM/PM.

```cpp
struct Appointment {
    // What goes in here?
};

struct Time {
    // What goes in here?
};
```

**Example 9**
Appointment a;
a.name = "Matias";
a.email = "mkorman@eecs.tufts.edu";
a.cancelled = false;
a.time.hour = 8;
a.time.minute = 30;

Appointment *aptr = &a;
aptr->cancelled = true;
Appointment *bptr = &a;
bptr->cancelled = false;

// Is the appointment cancelled or not?

Example 10
int y = 100;
int *yptr = &y;
(*yptr)++;
cout << *yptr << endl;

// What gets printed to the screen?
// What would happen if we removed the '*' in line 3?