ENSF 337 Fall 2018 – Tutorial 4

Problem I - - Draw Memory Diagrams for points ONE in the following C program.

```
#include <stdio.h>
typedef struct Point_s {
    int x, y;
} Point;
typedef struct Circle_s {
    Point center;
    double radius;
} Circle;
typedef struct Cylinder_s {
    Circle* base;
    double height;
} Cylinder;

Point do_something (const Cylinder *arg1, Point* arg2){
    Point temp = {0, 0};
    temp.x += arg1->base->center.y;
    temp.y += arg2->y;
    // point One
    return temp;
}

int main(void ) {
    Circle ci = {{4, 5}, 2.0};
    Cylinder cy = {&ci, 60.0};
    cy.base->center.y = 77;
    (*cy.base).radius = 33.0;
    Point p = do_something (&cy, &cy.base->center);
    return 0;
}
```