

17-355/17-655/17-819: Program Analysis

Pointer Analysis

In-Class Exercises

February 18, 2020

Andrew ID: _____

1. Analyze the following program using Andersen's points-to analysis and draw the resulting points-to graph

```
1: q := malloc()
2: p := malloc()
3: p := q
4: r := &p
5: s := malloc()
6: *r := s
7: t := &s
8: u := *t
```

2. Analyze the following program using Steensgaard's points-to analysis and draw the resulting points-to graph

```
1: a := &x
2: b := &y
3: if p then
4:     y := &z
5: else
6:     y := &x
7: c := &y
```