

CSci 360, Fall 2004, Assignment 1

This assignment is worth 25 points. Your solutions to this assignment are due by 5pm Friday, September 3. You should submit your solutions by attaching the two changed files (`prime.adb` and `int_set.adb`) to an e-mail sent to `burch@grendel.hendrix.edu`.

Download the supporting code from the class Web site.

1. Complete the `Is_Prime` function in the Ada program of `prime.adb`. To compile the program, use the `gnatmake` program:

```
unix% gnatmake prime.adb
```

This will create an executable file `prime`. You should then be able to run the program to test your code: It will read a number from you and display “prime” or “not prime” depending on what your function returns.

```
unix% ./prime
Number? 35
not prime
```

2. Complete the `Remove_Integer` procedure in `int_set.adb`. You can test your program by compiling this file with `test_set.adb`.

```
unix% gnatmake test_set.adb
gcc -c int_set.adb
gcc -c test_set.adb
gnatbind -x test_set.ali
gnatlink test_set.ali
unix% ./test_set
Command ([q]query/[i]nset/[r]emove/e[x]it): i
Value (query/insert/remove): 6
Command ([q]query/[i]nset/[r]emove/e[x]it): q
Value (query/insert/remove): 6
6 is present.
Command ([q]query/[i]nset/[r]emove/e[x]it): r
Value (query/insert/remove): 6
Command ([q]query/[i]nset/[r]emove/e[x]it): q
Value (query/insert/remove): 6
6 is absent.
Command ([q]query/[i]nset/[r]emove/e[x]it): x
```

You should of course test your code more thoroughly than this.