



University of British Columbia
CPSC 111, Intro to Computation
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Tamara Munzner

Loops III

Lecture 20, Fri Mar 5 2010

borrowing from slides by Kurt Eiselt

<http://www.cs.ubc.ca/~tmm/courses/111-10>

Reading

- Reading question for Chap 6 due today
- Next week:
 - Chap 7: 7.1, 7.5-7.7. Topics 7.3 and 7.4 (3rd ed)
 - Chap 8: 8.1, 8.5-8.7. Topics 6.3 and 6.4 (2nd ed)

News

- Midterms returned before break
 - get yours after class if you didn't already

Recap: While Loop Example

```
public class WhileDemo
{
    public static void main (String[] args)
    {
        int limit = 3;
        int counter = 1;

        while (counter <= limit)
        {
            System.out.println("The square of " + counter +
                               " is " + (counter * counter));

            counter = counter + 1;
        }

        System.out.println("End of demonstration");
    }
}
```

■ while version

Recap: For Loop Example

```
public class ForDemo
{
    public static void main (String[] args)
    {
        for (int counter = 1; counter <= 3; counter = counter + 1)
        {
            System.out.println("The square of " + counter +
                               " is " + (counter * counter));
        }
        System.out.println("End of demonstration");
    }
}
```

■ for version

Recap: Do Loop Example

```
public class DoDemo
{
    public static void main (String[] args)
    {
        int limit = 3;
        int counter = 1;

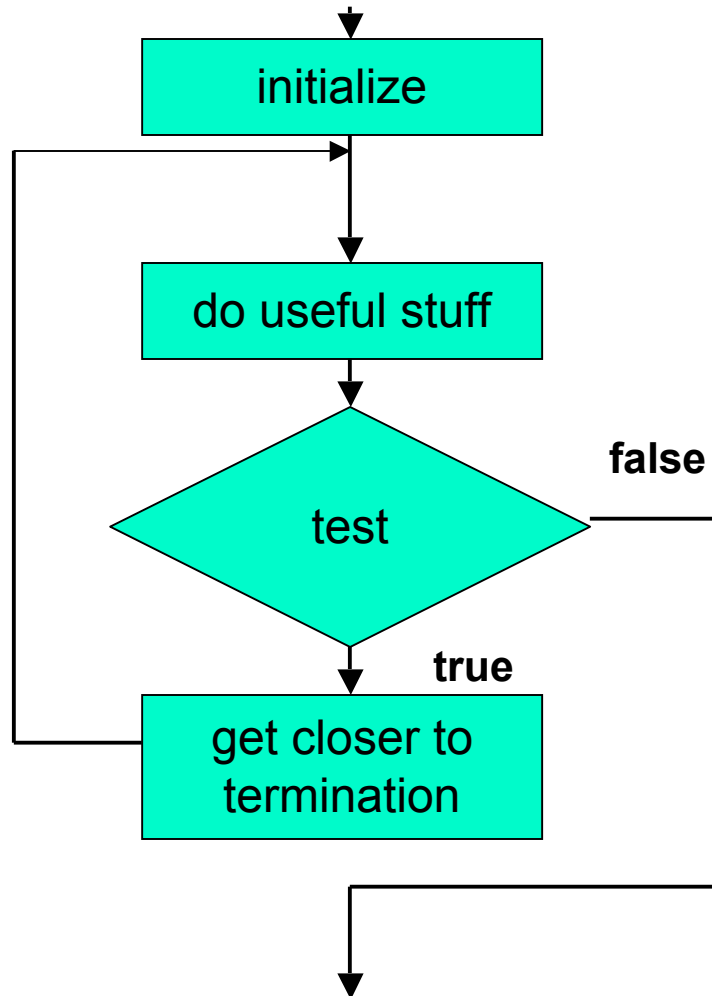
        do
        {
            System.out.println("The square of " + counter +
                               " is " + (counter * counter));

            counter = counter + 1;
        } while (counter <= limit);

        System.out.println("End of demonstration");
    }
}
```

■ do version

Recap: Do Statement



- Body always executed at least once

order of four things can change, but need them all

Practice Problem

- Write program using loop to simulate flipping a coin one million times
 - keep track of how many times it's heads up and how many heads down
 - print results
- Make version for each loop type
 - `while`, `for`, `do`

Flipping Coins

- `while` version

Flipping Coins

- for version