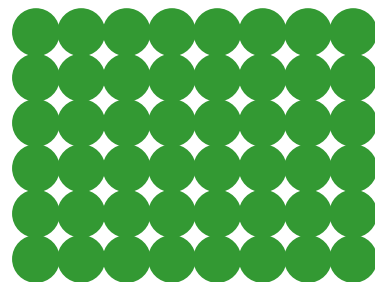

More while loops

COMP 102

Victoria University of Wellington

Nested loops: while inside while

```
public void drawCircles(int rows, int cols) {  
    int diam = 20;  
    int row = 0;  
    while (row < rows) {  
        int col = 0;  
        while ( col < cols ) {  
            int y = 50 + row*diam;  
            int x = 20 +col*diam;  
            UI.fillOval(x, y, diam, diam);  
            col++;  
        }  
        row++;  
    }  
}
```



Determining when the user is done

```
UI.print("Enter all the marks (end with -1: ");
double sum = 0;
double n = UI.askDouble("mark: ");
while ( n != -1) {
    sum = sum + n;
    n = UI.askDouble("mark: ");
}
```

Determining when the user is done

- Can end at a special value, but....

```
UI.print("Enter all the marks (end with -1: ");
double sum = 0;
while ( true) {
    double n = UI.askDouble("mark: ");
    if (n != -1) { break; }
    sum = sum + n;
}
```

- **break** gets out of the middle of a loop
 - Some people consider it bad style.
 - DON'T use it at the beginning of the loop – only in the middle.