double tempC = 20;

double tempF;

while (tempC <= 40) {

tempF = 1.8\*tempC + 32;

System.out.println(tempC + “ C = ” + tempF + “ F ”);

tempC += 5;

}

|  |  |  |  |
| --- | --- | --- | --- |
| tempC | tempF | tempC <= 40 | Console |
| 20 | 0 | true | 20 C = 68 F |
| 25 | 68 | true | 25 C = 77 F |
| 30 | 77 | true | 30 C = 86 F |
| 40 | 86 | true | 35 C = 95 F |
| 45 | 95 | true | 40 C = 104 F |
|  |  |  |  |

int sum = 0;

int k = 0;

int num; // JVM initializes this to 0

while (k < 5) {

num = keyboard.nextInt(); // 1, 2, 3, 4

sum += num;

k += 1;

}

System.out.println(“sum is ” + sum);

System.out.println(“avg is ” + sum / 4.0);

// This average should be 4.0 not 5.0 because it never exec’s

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| sum | num | k | k<5 | Console |
| 0 | 0 | 0 | true |  |
| 1 | 1 | 1 | true |  |
| 3 | 2 | 2 | true |  |
| 6 | 3 | 3 | true |  |
| 10 | 4 | 4 | true |  |
| 10 | 4 | 5 | false | sum is 10  avg is 2.5 |