

Math 201 - Quiz 5

March 4, 2015

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) Write a code fragment that uses an iteration statement to compute $\sum_{k=1}^{25} \frac{1}{k^3}$.

```
float sum = 0.0;
for (int k=1; k <= 25; k++) {
    sum += 1.0 / (k*k*k);
}
```

2. (3 points) Problem #2, Page 81.

(a) MAY NEVER TERMINATE BECAUSE i IS AN UNSIGNED INTEGER AND ITS VALUES WILL ALWAYS BE ≥ 0 .

THE TEST CONDITION WILL ALWAYS BE SATISFIED.

(b) MAY NEVER TERMINATE i IS DECLARED DOUBLE AND ITS VALUE MAY NEVER BE EXACTLY ZERO.

(c) WILL TERMINATE, BUT PROBABLY NOT AS THE USER HAD INTENDED. THE "CONDITION" $i=10$ IS ACTUALLY AN ASSIGNMENT STATEMENT, AND IT WILL PROBABLY HAVE A TRUE VALUE.