Quiz 5

Name:

For each of the following problems please circle the correct answer. You don't need to show your work.

1. Suppose that $f(n) = 5n^2 logn + 10n + 6$, then

    (a) $f(n) = O(n)$

    (b) $f(n) = O(n^2)$

    (c) $f(n) = O(n^3)$

    (d) All of the above

    (e) None of the above

2. Suppose that $f(n) = 6n$ for $n < 1000$ and equals $3n^3$ for $n \geq 1000$, then

    (a) $f(n) = O(n)$

    (b) $f(n) = O(n^2)$

    (c) $f(n) = O(n^3)$

    (d) All of the above

    (e) None of the above

3. Suppose that $f(n) = 2^n$ for $n < 1,000,000,000$ and equals $5n$ for $n \geq 1,000,000,000$, then

    (a) $f(n) = O(n)$

    (b) $f(n) = O(n^2)$

    (c) $f(n) = O(n^3)$

    (d) All of the above

    (e) None of the above