Give tilde approximations for the following quantities:

1. **N + 1 ~N**

1. **1 + 1/N ~1/N**

1. **(1 + 1/N )(1 + 2/N ) ~2/N^2**

1. **2N^3 - 15 N^2 + N ~2N^3**

1. **lg(2N )/lg N ~lg(2N)**

1. **lg(N^2 + 1) / lg N ~lg(N^2)**