

PRINT your name:

Answer each question below completely. You must fully justify your answers to get credit. Even a correct answer with no justification is wrong.

1. Simplify $\frac{-1 + i\sqrt{3}}{3 + i\sqrt{3}}$. Give your answer in the form $a + bi$.
If either a or b is 0, feel free to omit that part of the answer.

2. Write $(1 - i)^8$ in the form $a + bi$.