The following proof that $x^3 + 17x^2$ is $O(x^3)$ is out of order. Also, the following words have been deleted and replaced by *oops*: *let, suppose, therefore, then*. Reorder the sentences and fix the *oops*'s to make a correct proof. Write the correct proof in your blue book.

- *oops* $x^3 + 17x^2 \leq x^3 + x^3 = 2x^3$.

- *oops* $x^3 + 17x^2$ is $O(x^3)$.

- *oops* $k = 17$.

- We have shown that if $x \geq k$, then $x^3 + 17x^2 \leq Cx^3$.

- *oops* $x \geq 17$.

- *oops* $17x^2 \leq xx^2 = x^3$.

- We must show that if $x \geq k$, then $x^3 + 17x^2 \leq Cx^3$

- *oops* $C = 2$.