Conditions

Simplify and Solve

4 square root of -13 - 6 square root of -13

Solution

$4\sqrt{-13}-6\sqrt{-13}$

This is the task for using operations with the complex numbers.

As we know, the definition claims, that:

$\sqrt{-1}=i$

Then

$\sqrt{-13}=\sqrt{(-1)\cdot 13}=i\sqrt{13}$

$4\sqrt{-13}-6\sqrt{-13}=4i\sqrt{13}-6i\sqrt{13}=-2i\sqrt{13}$

Answer: $2i\sqrt{13}$