1. Simplify the expression below into the form $a + bi$. Then, choose the intervals that a and b belong to.

$$\frac{54 + 77i}{-1 + 4i}$$

A. $a \in [-56, -53.5]$ and $b \in [19, 21]$

B. $a \in [14.5, 17]$ and $b \in [-294.5, -292]$

C. $a \in [-22, -19.5]$ and $b \in [8, 8.5]$

D. $a \in [14.5, 17]$ and $b \in [-18.5, -15.5]$

E. $a \in [253.5, 255.5]$ and $b \in [-18.5, -15.5]$

---

2. Simplify the expression below into the form $a + bi$. Then, choose the intervals that a and b belong to.

$$(2 - 6i)(10 + 4i)$$

A. $a \in [-11, -3]$ and $b \in [-72, -62]$

B. $a \in [38, 49]$ and $b \in [-52, -45]$

C. $a \in [16, 22]$ and $b \in [-24, -23]$

D. $a \in [38, 49]$ and $b \in [50, 53]$

E. $a \in [-11, -3]$ and $b \in [68, 71]$
