1.

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

$$\frac{45 - 77i}{8 - i}$$

A. $a \in [3, 4.5]$ and $b \in [-11, -9]$

B. $a \in [6, 7.5]$ and $b \in [-9.5, -8]$

C. $a \in [5, 6.5]$ and $b \in [76.5, 78]$

D. $a \in [6, 7.5]$ and $b \in [-572, -570]$

E. $a \in [435.5, 437.5]$ and $b \in [-9.5, -8]$

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

$$(-3 - 10i)(8 - 2i)$$

A. $a \in [-26, -20]$ and $b \in [17, 25]$

B. $a \in [-49, -39]$ and $b \in [-74, -70]$

C. $a \in [-4, -2]$ and $b \in [-86, -82]$

D. $a \in [-49, -39]$ and $b \in [66, 76]$

E. $a \in [-4, -2]$ and $b \in [83, 87]$

4. Simplify the expression below and choose the interval the simplification is contained within.

$$7 - 15 \div 9 * 13 - (17 * 4)$$

A. $[-65.13, -58.13]$

B. $[74.87, 76.87]$

C. $[-91.67, -77.67]$

D. $[-130.67, -120.67]$

E. None of the above

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5. Choose the **smallest** set of Complex numbers that the number below belongs to.
$$\frac{12}{8} + 81i^2$$

A. Pure Imaginary

B. Nonreal Complex

C. Not a Complex Number

D. Irrational

E. Rational

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6. Choose the **smallest** set of Real numbers that the number below belongs to.
$$-\sqrt{\frac{44100}{225}}$$

A. Integer

B. Rational

C. Whole

D. Not a Real number

E. Irrational