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

$$\frac{-18 - 44i}{-8 + 5i}$$

A. $a \in [1.5, 3]$ and $b \in [-9.5, -8]$

B. $a \in [-2, -0.5]$ and $b \in [4, 5.5]$

C. $a \in [2.5, 4.5]$ and $b \in [1.5, 3.5]$

D. $a \in [-76.5, -75]$ and $b \in [4, 5.5]$

E. $a \in [-2, -0.5]$ and $b \in [441, 442.5]$

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

$$(-4 + 3i)(-9 + 8i)$$

A. $a \in [60, 64]$ and $b \in [-12, -3]$

B. $a \in [7, 13]$ and $b \in [-59, -58]$

C. $a \in [60, 64]$ and $b \in [4, 6]$

D. $a \in [36, 37]$ and $b \in [24, 28]$

E. $a \in [7, 13]$ and $b \in [57, 65]$

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

$$2 - 13^2 + 12 \div 7 * 18 \div 16$$

A. $[172.37, 173.16]$

B. $[169.59, 171.39]$

C. $[-167.31, -165.85]$

D. $[-165.65, -164.49]$

E. None of the above

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4. Choose the **smallest** set of Complex numbers that the number below belongs to.

$$\sqrt{\frac{980}{0}} + \sqrt{221}i$$

A. Rational

B. Pure Imaginary

C. Nonreal Complex

D. Not a Complex Number

E. Irrational

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5. Choose the **smallest** set of Real numbers that the number below belongs to.

$$-\sqrt{\frac{304704}{576}}$$

A. Irrational

B. Integer

C. Rational

D. Not a Real number

E. Whole
