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

$$\frac{-72 - 11i}{-4 + 3i}$$

A. $a \in [9.5, 12]$ and $b \in [10, 12]$

B. $a \in [9.5, 12]$ and $b \in [259, 260.5]$

C. $a \in [17.5, 19]$ and $b \in [-4, -2.5]$

D. $a \in [12, 13.5]$ and $b \in [-7, -6]$

E. $a \in [254, 255.5]$ and $b \in [10, 12]$

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

$$(8 - 9i)(10 + 3i)$$

A. $a \in [77, 82]$ and $b \in [-30, -23]$

B. $a \in [53, 56]$ and $b \in [-117, -113]$

C. $a \in [106, 118]$ and $b \in [-70, -58]$

D. $a \in [53, 56]$ and $b \in [106, 118]$

E. $a \in [106, 118]$ and $b \in [66, 68]$

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

$$5 - 11 \div 16 * 8 - (6 * 7)$$

A. $[-43.2, -40.6]$

B. $[-39.8, -37]$

C. $[-47.3, -43.9]$

D. $[46.1, 49.7]$

E. None of the above

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

$$\sqrt{\frac{630}{5}} + \sqrt{165}i$$

A. Not a Complex Number

B. Nonreal Complex

C. Rational

D. Pure Imaginary

E. Irrational

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

$$\sqrt{\frac{1190}{5}}$$

A. Rational

B. Whole

C. Not a Real number

D. Integer

E. Irrational
