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

$$14 - 3^2 + 11 \div 19 * 15 \div 7$$

  A. $[22.51, 23.38]$

  B. $[4.34, 6.23]$

  C. $[24.03, 26.35]$

  D. $[5.93, 7.33]$

  E. None of the above

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

$$\frac{18 - 55i}{-6 - 1i}$$

  A. $a \in [-54.4, -52.4]$ and $b \in [9.35, 10.6]$

  B. $a \in [-3.7, -2.65]$ and $b \in [54.65, 56]$

  C. $a \in [-2.05, -1.3]$ and $b \in [9.35, 10.6]$

  D. $a \in [-2.05, -1.3]$ and $b \in [347.85, 348.25]$

  E. $a \in [-6.7, -4.3]$ and $b \in [7.55, 9.1]$

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

$$\sqrt{\frac{361}{36}} + \sqrt{85i}$$

  A. Irrational

  B. Not a Complex Number

  C. Rational

D. Pure Imaginary

E. Nonreal Complex

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

$$\sqrt{\dfrac{50176}{256}}$$

A. Irrational

B. Whole

C. Integer

D. Not a Real number

E. Rational

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

$$(10 - 2i)(-9 - 8i)$$

A. $a \in [-94, -84]$ and $b \in [14, 19]$

B. $a \in [-79, -71]$ and $b \in [93, 99]$

C. $a \in [-113, -103]$ and $b \in [58, 66]$

D. $a \in [-113, -103]$ and $b \in [-69, -61]$

E. $a \in [-79, -71]$ and $b \in [-105, -94]$