

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

$$-\sqrt{\frac{14400}{576}}$$

- A. Irrational
 - B. Integer
 - C. Rational
 - D. Whole
 - E. Not a Real number
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2. Simplify the expression below and choose the interval the simplification is contained within.

$$17 - 4 \div 15 * 11 - (3 * 20)$$

- A. $[-48, -45.5]$
 - B. $[337.8, 340.2]$
 - C. $[-44.3, -42.6]$
 - D. $[217.6, 222]$
 - E. $[76.4, 78.4]$
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3. Choose the **smallest** set of Complex numbers that the number below belongs to.

$$\frac{21\pi}{0} + 5i^2$$

- A. Pure Imaginary
 - B. Irrational
 - C. Nonreal Complex
 - D. Rational
 - E. Not a Complex Number
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4. Simplify the expression below into the form $a + bi$. Then, choose the intervals that a and b belong to.

$$(6 - 2i)(7 - 8i)$$

$$a = \boxed{} \quad b = \boxed{}$$

- A. $a \in [22, 33]$ and $b \in [58, 65]$
 - B. $a \in [56, 60]$ and $b \in [-36, -30]$
 - C. $a \in [38, 47]$ and $b \in [15, 21]$
 - D. $a \in [56, 60]$ and $b \in [32, 35]$
 - E. $a \in [22, 33]$ and $b \in [-68, -60]$
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5. Simplify the expression below into the form $a + bi$. Then, choose the intervals that a and b belong to.

$$\frac{18 - 66i}{4 + 3i}$$

$$a = \boxed{} \quad b = \boxed{}$$

- A. $a \in [-132, -125]$ and $b \in [-15, -12]$
 - B. $a \in [8, 14]$ and $b \in [-9, -8]$
 - C. $a \in [-6, -4]$ and $b \in [-15, -12]$
 - D. $a \in [-6, -4]$ and $b \in [-322, -316]$
 - E. $a \in [4, 7]$ and $b \in [-25, -19]$
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