
1.(1 pt) Match each interval below with set-builder notation for the same interval.

- 1. $[5, 6]$
- 2. $(5, 6]$
- 3. $(-\infty, 5)$
- 4. $(5, 6)$
- 5. $(-\infty, 5]$
- A. $\{x \mid 5 < x < 6\}$
- B. $\{x \mid x < 5\}$
- C. $\{x \mid x \leq 5\}$
- D. $\{x \mid 5 \leq x \leq 6\}$
- E. $\{x \mid 5 < x \leq 6\}$

2.(1 pt) Let $S = [-10, -2)$, $T = [-4, 0]$, and $W = (-\infty, -8)$. For each intersection or union, choose the correct notation for the resulting interval.

- 1. $S \cap W$
- 2. $S \cup W$

- 3. $S \cup T$
- 4. $S \cap T$
- A. $[-10, -8)$
- B. $(-\infty, -2)$
- C. $[-10, 0]$
- D. $[-4, -2)$

3.(1 pt) Let $S = (-1, \infty)$, $T = (-\infty, 1]$, and $W = [-2, 1)$. For each intersection or union, choose the correct notation for the resulting interval.

- 1. $T \cup W$
- 2. $S \cup T$
- 3. $S \cup W$
- 4. $T \cap W$
- A. $[-2, \infty)$
- B. $(-\infty, 1]$
- C. $(-\infty, \infty)$
- D. $[-2, 1)$