

## Interval Notation

Simplify the following. Leave in interval notation if possible.

1.  $[3,5) \cup [5,8]$

2.  $(-3, 7] \cup (-4, 8)$

3.  $(-\infty, 5) \cup (-3, \infty)$

4.  $[2,4] \cap [3,9]$

5.  $(-\infty, 3] \cap (-2, \infty)$

6.  $(-3, 6] \cap (6, 8)$

7.  $\{2,3,4\} \cap [2,4]$

8.  $\{5,6,7,8\} \cap \{x \mid x > 5\}$

9.  $\{x \mid x \geq 3\} \cup [-1,5]$

10.  $\{1,3,5\} \cup (-\infty, \infty)$

## SOLUTIONS

1.  $[3,8]$
2.  $(-4, 8)$
3.  $(-\infty, \infty)$
4.  $[3, 4]$
5.  $(-2, 3]$
6.  $\emptyset$
7.  $\{2,3,4\}$
8.  $\{6,7,8\}$
9.  $[-1, \infty)$
10.  $(-\infty, \infty)$