

Name \_\_\_\_\_ Student No. \_\_\_\_\_ G\_\_\_\_/\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_  
Nickname: \_\_\_\_\_ Worksheet No.: \_\_\_\_\_

## Simplifying Interval Notation

### A. Simplify the given interval notation.

1)  $(-\infty, 2) \cup (4, \infty)$

4)  $[-9, 7) \cup [-3, 0)$

Simpliest Form:

Simpliest Form:

2)  $(-\infty, 3] \cup (-8, \infty)$

5)  $(-\infty, 2) \cup [3, 10] \cup [6, \infty)$

Simpliest Form:

Simpliest Form:

3)  $[-10, 5] \cup [-6, 3]$

6)  $(-\infty, 2) \cup [7, 12] \cup [5, \infty)$

Simpliest Form:

Simpliest Form:

## Polynomial Inequality

### B. Give the solution set to the given polynomial inequality.

1)  $-(x-1)(x+1)^3 > 0$

2)  $-(x+1)^2(x+2)^3 \geq 0$

Solution Set:

Solution Set:

$$3) \quad -(x-1)(x+1)^2(x+2) \geq 0$$

Solution Set:

$$4) \quad (x-1)^2(x+1)(x+2)(x+3) \leq 0$$

Solution Set:

$$5) \quad -(x+1)(x+2)(x+3)^2 \geq 0$$

Solution Set:

$$6) \quad -(x-2)(x-1)^2(x+2) \geq 0$$

Solution Set:

$$7) \quad (x-1)(x+1)(x+2)(x+3) < 0$$

Solution Set:

$$8) \quad -(x-1)(x+1)^2 \geq 0$$

Solution Set: