

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

## Simplifying Interval Notation

### A. Simplify the given interval notation.

1)  $(-\infty, 4) \cup (5, \infty)$

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

Simpliest Form:

Simpliest Form:

2)  $[-9, 5] \cup [-7, 4]$

5)  $(-\infty, 4] \cup [5, 10) \cup (6, \infty)$

Simpliest Form:

Simpliest Form:

3)  $(-3, 4] \cup (-3, 4]$

6)  $(-\infty, 4] \cup [3, 12) \cup (7, \infty)$

Simpliest Form:

Simpliest Form:

## Polynomial Inequality

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

1)  $-(x-1)(x+1)^2(x+2) < 0$

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

Solution Set:

Solution Set:

$$3) \ (x+1)^3(x+2)^2 < 0$$

Solution Set:

$$4) \ -(x-2)(x+2)(x+3) < 0$$

Solution Set:

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

Solution Set:

$$6) \ -(x+1)^2(x+3)^2 \leq 0$$

Solution Set:

$$7) \ (x-1)(x+1)^2(x+3)^2 \leq 0$$

Solution Set:

$$8) \ (x-1)(x+2)^2(x+3)^2 > 0$$

Solution Set: