

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

## Simplifying Interval Notation

### A. Simplify the given interval notation.

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

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

Simpliest Form:

Simpliest Form:

2)  $[-9, 6] \cup [-5, 3]$

5)  $(-\infty, 3) \cup [5, 11] \cup [7, \infty)$

Simpliest Form:

Simpliest Form:

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

6)  $(-\infty, 4) \cup [1, 9] \cup [6, \infty)$

Simpliest Form:

Simpliest Form:

## Polynomial Inequality

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

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

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

Solution Set:

Solution Set:

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

Solution Set:

$$4) \ -(x-1)^3(x+1) < 0$$

Solution Set:

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

Solution Set:

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

Solution Set:

$$7) \ (x-1)^4(x+2) \leq 0$$

Solution Set:

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

Solution Set: