

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

## Simplifying Interval Notation

### A. Simplify the given interval notation.

1)  $[-5, 0] \cup [-6, 4]$

4)  $(-\infty, 4] \cup [-8, \infty)$

Simpliest Form:

Simpliest Form:

2)  $[-10, 5] \cup [-5, 4]$

5)  $(-\infty, 2) \cup [1, 11] \cup [6, \infty)$

Simpliest Form:

Simpliest Form:

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

6)  $(-\infty, 3] \cup [1, 11) \cup (6, \infty)$

Simpliest Form:

Simpliest Form:

## Polynomial Inequality

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

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

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

Solution Set:

Solution Set:

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

Solution Set:

$$4) -(x-1)(x+1)(x+3)^2 > 0$$

Solution Set:

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

Solution Set:

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

Solution Set:

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

Solution Set:

$$8) -(x-1)(x+1)(x+2) < 0$$

Solution Set: