

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

## Simplifying Interval Notation

### A. Simplify the given interval notation.

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

4)  $(-\infty, 4] \cup (-3, 9]$

Simpliest Form:

Simpliest Form:

2)  $[-8, 0] \cup [-8, 0]$

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

Simpliest Form:

Simpliest Form:

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

6)  $(-\infty, 2] \cup [6, 10) \cup (7, \infty)$

Simpliest Form:

Simpliest Form:

## Polynomial Inequality

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

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

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

Solution Set:

Solution Set:

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

Solution Set:

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

Solution Set:

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

Solution Set:

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

Solution Set:

$$7) (x+2)^2(x+3) \geq 0$$

Solution Set:

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

Solution Set: