

Name _____ Student No. _____ G____/____ Date: _____ Score: _____
Nickname: _____ Worksheet No.: _____

Simplifying Interval Notation

A. Simplify the given interval notation.

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

4) $(-2, 3] \cup (-4, 0]$

Simpliest Form:

Simpliest Form:

2) $[-7, 5] \cup [-3, 3]$

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

Simpliest Form:

Simpliest Form:

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

6) $(-\infty, 3) \cup [4, 10] \cup [6, \infty)$

Simpliest Form:

Simpliest Form:

Polynomial Inequality

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

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

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

Solution Set:

Solution Set:

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

Solution Set:

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

Solution Set:

$$5) -(x+1)^4 \geq 0$$

Solution Set:

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

Solution Set:

$$7) -(x-1)^2(x+2)^2 > 0$$

Solution Set:

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

Solution Set: