

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

Simplifying Interval Notation

A. Simplify the given interval notation.

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

4) $(-\infty, 2) \cup (6, \infty)$

Simpliest Form:

Simpliest Form:

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

5) $(-\infty, 3) \cup [3, 10] \cup [7, \infty)$

Simpliest Form:

Simpliest Form:

3) $(-\infty, 7] \cup (-1, 12]$

6) $(-\infty, 2) \cup [3, 12] \cup [7, \infty)$

Simpliest Form:

Simpliest Form:

Polynomial Inequality

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

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

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

Solution Set:

Solution Set:

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

Solution Set:

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

Solution Set:

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

Solution Set:

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

Solution Set:

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

Solution Set:

$$8) -(x-2)(x-1)(x+3) < 0$$

Solution Set: