

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

Simplifying Interval Notation

A. Simplify the given interval notation.

1) $[-3, 2) \cup [1, \infty)$

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

Simpliest Form:

Simpliest Form:

2) $(-\infty, 2) \cup (0, \infty)$

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

Simpliest Form:

Simpliest Form:

3) $[-8, 6] \cup [-5, 2]$

6) $(-\infty, 4] \cup [2, 12) \cup (6, \infty)$

Simpliest Form:

Simpliest Form:

Polynomial Inequality

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

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

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

Solution Set:

Solution Set:

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

Solution Set:

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

Solution Set:

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

Solution Set:

$$6) \ -(x-2)(x+2)(x+3) < 0$$

Solution Set:

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

Solution Set:

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

Solution Set: