Simplifying Interval Notation

A.   Simplify the given interval notation.

1) $[-10, 8] \cup [-6, 3]$

4) $(-\infty, 7] \cup [-7, \infty)$

Simpliest Form:

Simpliest Form:

2) $(-\infty, 0] \cup (-6, \infty)$

5) $(-\infty, 3] \cup [4, 10) \cup (7, \infty)$

Simpliest Form:

Simpliest Form:

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

6) $(-\infty, 4) \cup [2, 11] \cup [7, \infty)$

Simpliest Form:

Simpliest Form:

Polynomial Inequality

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

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

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

Solution Set:

Solution Set:

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

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

Solution Set:

Solution Set:

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

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

Solution Set:

Solution Set:

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

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

Solution Set:

Solution Set: