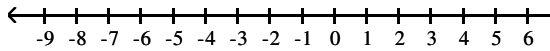


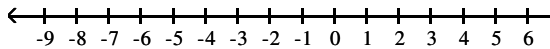
Name _____

Solve the polynomial inequality and graph the solution set on a number line.

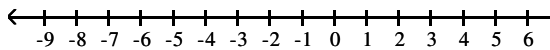
1) $x^2 + 10x + 24 > 0$



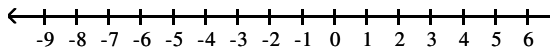
2) $x^2 - 5x + 4 > 0$



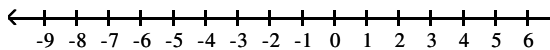
3) $(x + 5)(x - 7) < 0$



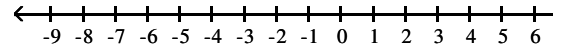
4) $(x + 4)(x - 7) < 0$



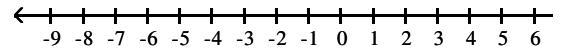
5) $x^2 - 6x - 7 \leq 0$



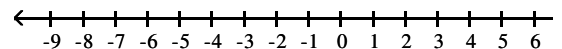
6) $x^2 - 4x - 21 \leq 0$



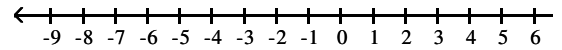
7) $x^2 + 3x \geq -2$



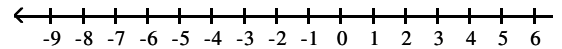
8) $x^2 + 5x \geq -6$



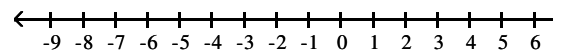
9) $(x - 1)(x + 4) > 0$



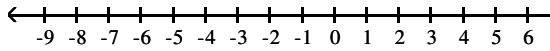
10) $(x - 5)(x + 3) > 0$



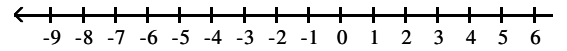
11) $x^2 + 12x + 36 > 0$



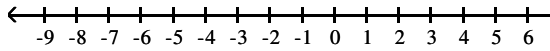
12) $x^2 + 4x + 4 > 0$



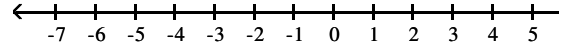
18) $3x^2 + 14x - 24 < 0$



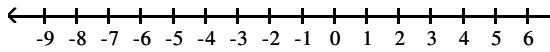
13) $2x^2 + 5x - 25 \leq 0$



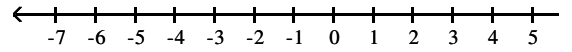
19) $-2x^2 + 4x \geq 0$



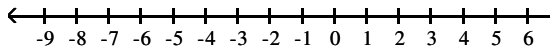
14) $3x^2 + 11x - 4 \leq 0$



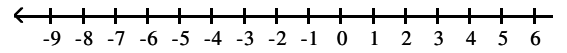
20) $-5x^2 + 8x \geq 0$



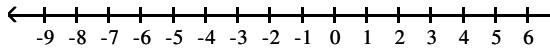
15) $2x^2 - 3x - 5 \geq 0$



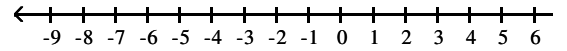
21) $x^2 + 8x \geq 0$



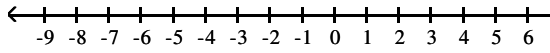
16) $4x^2 + 5x - 6 \geq 0$



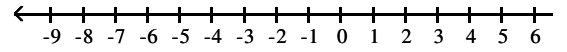
22) $x^2 + 2x \geq 0$



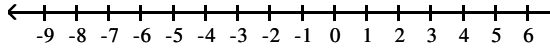
17) $3x^2 + 13x - 30 < 0$



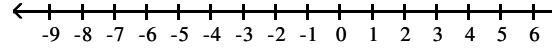
23) $x^2 - 16x + 64 < 0$



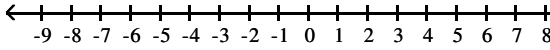
24) $x^2 - 14x + 49 < 0$



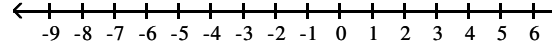
30) $(x - 9)(x + 7) > 0$



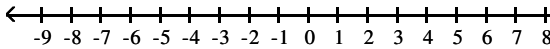
25) $x^2 - 18x + 81 \geq 0$



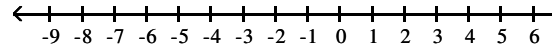
31) $x^2 + 8x + 16 > 0$



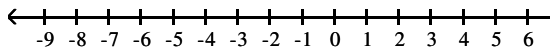
26) $x^2 + 14x + 49 \geq 0$



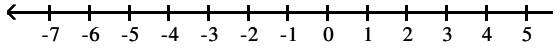
32) $2x^2 + 11x - 6 \geq 0$



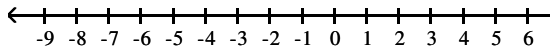
27) $x^2 + 2x - 24 > 0$



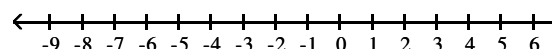
33) $-2x^2 + 7x \geq 0$



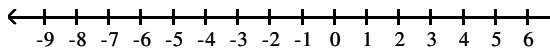
28) $x^2 - 4x - 5 \leq 0$



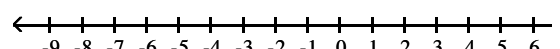
34) $x^2 + 5x \geq 0$



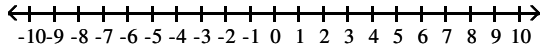
29) $x^2 + 7x \geq -12$



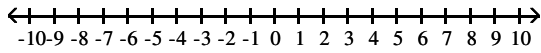
35) $4x^2 + 3x - 10 \geq 0$



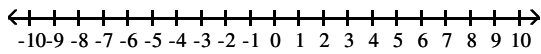
36) $(x + 5)(x + 4)(x - 3) > 0$



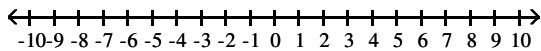
37) $(x + 1)(x - 4)(x - 6) > 0$



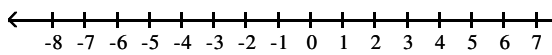
38) $(x + 7)(x + 4)(x + 1) < 0$



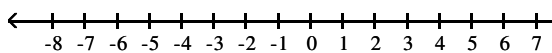
39) $(x + 4)(x - 3)(x - 5) < 0$



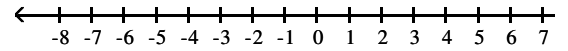
40) $x^3 - 4x^2 - 17x + 60 \geq 0$



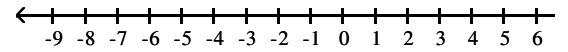
41) $x^3 + 5x^2 - 4x - 20 \geq 0$



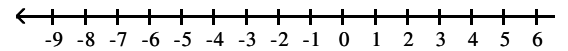
42) $x^3 + 4x^2 + 6x + 9 \leq 0$



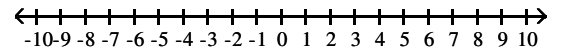
43) $x^2 - 8x + 16 < 0$



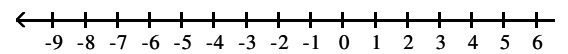
44) $4x^2 + 23x - 6 \geq 0$



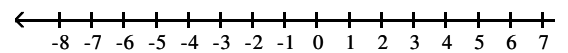
45) $(x + 2)(x + 1)(x - 7) < 0$



46) $x^2 - 16x + 64 > 0$



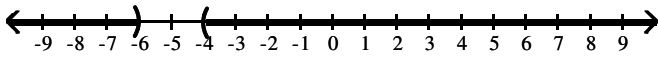
47) $x^3 - 2x^2 - 13x - 10 \geq 0$



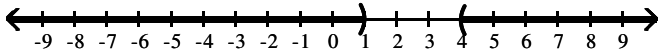
Answer Key

Testname: WORKSHEET7.6A_POLYNOMIALINEQUALITIES_V01

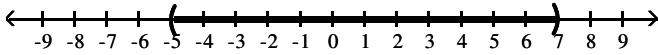
1) $(-\infty, -6) \cup (-4, \infty)$



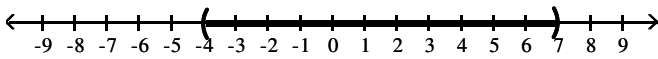
2) $(-\infty, 1) \cup (4, \infty)$



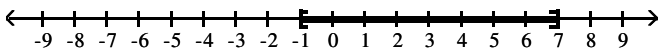
3) $(-5, 7)$



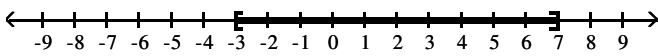
4) $(-4, 7)$



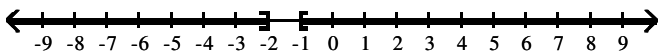
5) $[-1, 7]$



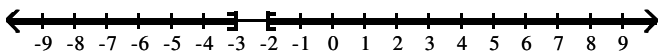
6) $[-3, 7]$



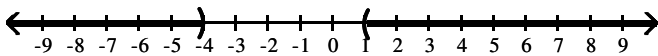
7) $(-\infty, -2] \cup [-1, \infty)$



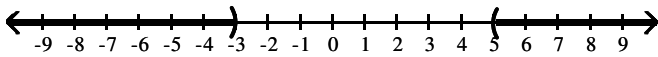
8) $(-\infty, -3] \cup [-2, \infty)$



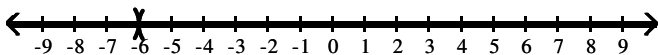
9) $(-\infty, -4) \cup (1, \infty)$



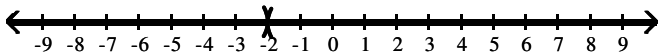
10) $(-\infty, -3) \cup (5, \infty)$



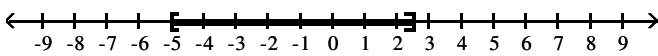
11) $(-\infty, -6) \cup (-6, \infty)$



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



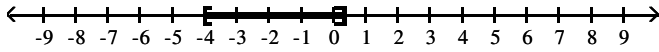
13) $\left[-5, \frac{5}{2}\right]$



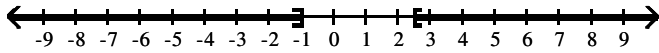
Answer Key

Testname: WORKSHEET7.6A_POLYNOMIALINEQUALITIES_V01

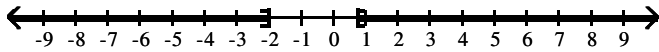
14) $\left[-4, \frac{1}{3}\right]$



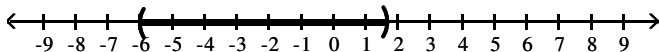
15) $(-\infty, -1] \cup \left[\frac{5}{2}, \infty\right)$



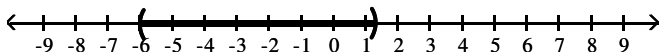
16) $(-\infty, -2] \cup \left[\frac{3}{4}, \infty\right)$



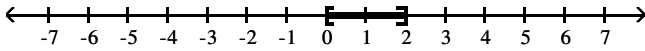
17) $\left(-6, \frac{5}{3}\right)$



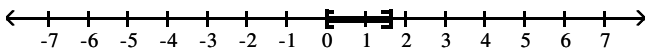
18) $\left(-6, \frac{4}{3}\right)$



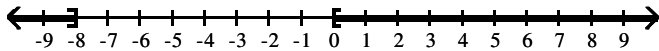
19) $[0, 2]$



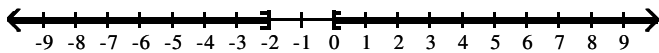
20) $\left[0, \frac{8}{5}\right]$



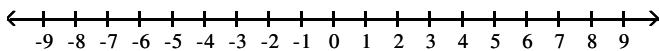
21) $(-\infty, -8] \cup [0, \infty)$



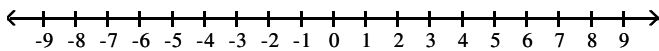
22) $(-\infty, -2] \cup [0, \infty)$



23) \emptyset



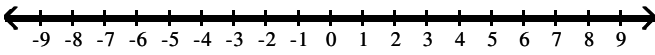
24) \emptyset



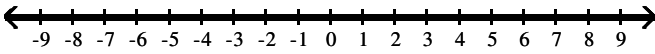
Answer Key

Testname: WORKSHEET7.6A_POLYNOMIALINEQUALITIES_V01

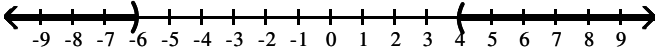
25) $(-\infty, \infty)$



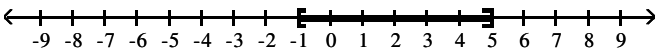
26) $(-\infty, \infty)$



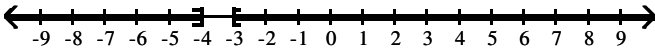
27) $(-\infty, -6) \cup (4, \infty)$



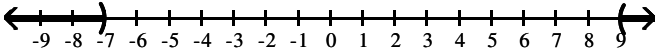
28) $[-1, 5]$



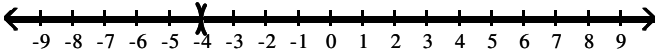
29) $(-\infty, -4] \cup [-3, \infty)$



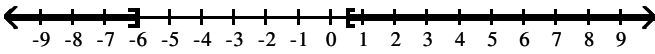
30) $(-\infty, -7) \cup (9, \infty)$



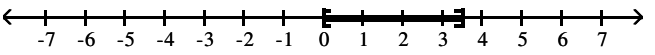
31) $(-\infty, -4) \cup (-4, \infty)$



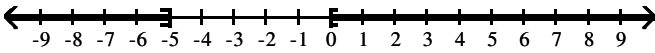
32) $(-\infty, -6] \cup \left[\frac{1}{2}, \infty\right)$



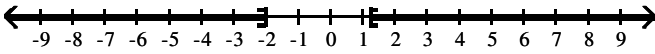
33) $\left[0, \frac{7}{2}\right]$



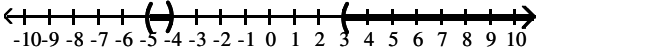
34) $(-\infty, -5] \cup [0, \infty)$



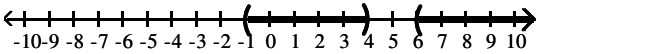
35) $(-\infty, -2] \cup \left[\frac{5}{4}, \infty\right)$



36) $(-5, -4) \cup (3, \infty)$



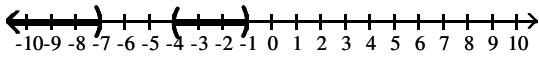
37) $(-1, 4) \cup (6, \infty)$



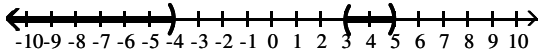
Answer Key

Testname: WORKSHEET7.6A_POLYNOMIALINEQUALITIES_V01

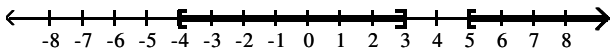
38) $(-\infty, -7) \cup (-4, -1)$



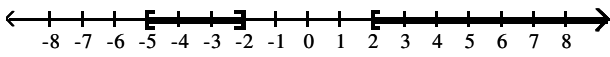
39) $(-\infty, -4) \cup (3, 5)$



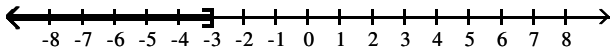
40) $[-4, 3] \cup [5, \infty)$



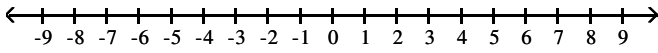
41) $[-5, -2] \cup [2, \infty)$



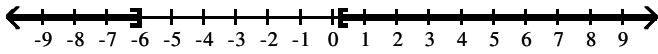
42) $(-\infty, -3]$



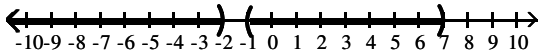
43) \emptyset



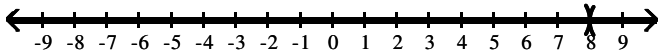
44) $(-\infty, -6] \cup \left[\frac{1}{4}, \infty\right)$



45) $(-\infty, -2) \cup (-1, 7)$



46) $(-\infty, 8) \cup (8, \infty)$



47) $[-2, -1] \cup [5, \infty)$

