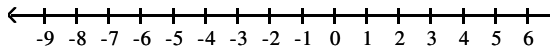


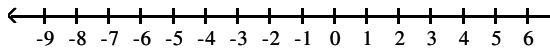
Name _____

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

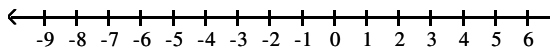
1) $x^2 - 6x + 5 > 0$



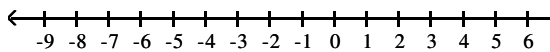
2) $x^2 - 8x + 15 > 0$



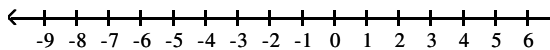
3) $(x + 2)(x - 4) < 0$



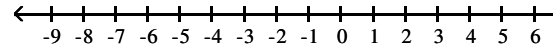
4) $(x + 1)(x - 3) < 0$



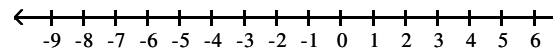
5) $x^2 - 3x - 10 \leq 0$



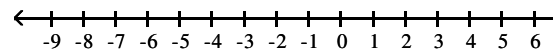
6) $x^2 - 2x - 15 \leq 0$



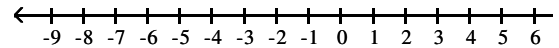
7) $x^2 + 2x \geq 8$



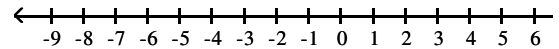
8) $x^2 + 5x \geq -4$



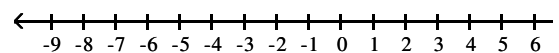
9) $(x - 5)(x + 1) > 0$



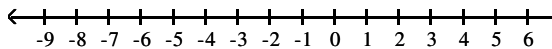
10) $(x - 5)(x + 4) > 0$



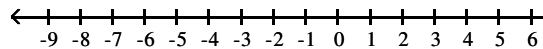
11) $x^2 + 2x + 1 > 0$



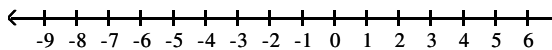
$$12) x^2 + 12x + 36 > 0$$



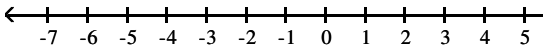
$$18) 2x^2 + 5x - 12 < 0$$



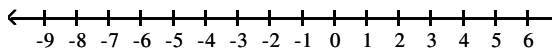
$$13) 3x^2 + 13x - 30 \leq 0$$



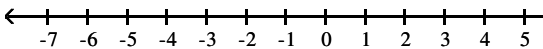
$$19) -3x^2 + 8x \geq 0$$



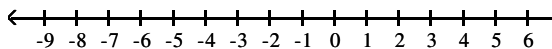
$$14) 2x^2 + 7x - 15 \leq 0$$



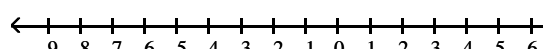
$$20) -4x^2 + 5x \geq 0$$



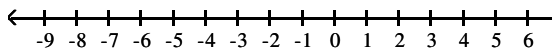
$$15) 3x^2 + 4x - 4 \geq 0$$



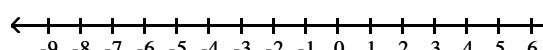
$$21) x^2 + 6x \geq 0$$



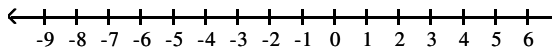
$$16) 3x^2 + 4x - 15 \geq 0$$



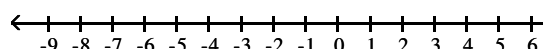
$$22) x^2 + 7x \geq 0$$



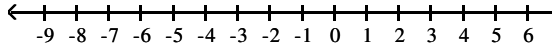
$$17) 4x^2 + 9x - 9 < 0$$



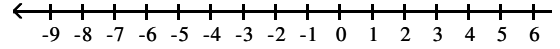
$$23) x^2 - 12x + 36 < 0$$



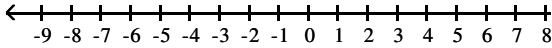
24) $x^2 + 8x + 16 < 0$



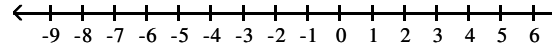
30) $(x - 1)(x + 8) > 0$



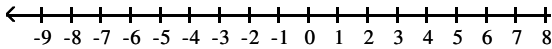
25) $x^2 - 8x + 16 \geq 0$



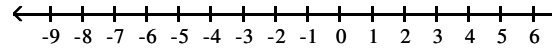
31) $x^2 + 14x + 49 > 0$



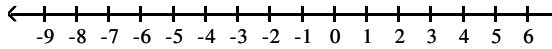
26) $x^2 + 8x + 16 \geq 0$



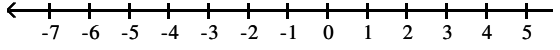
32) $4x^2 + 9x - 9 \geq 0$



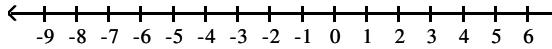
27) $x^2 + 5x + 6 > 0$



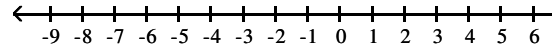
33) $-6x^2 + 7x \geq 0$



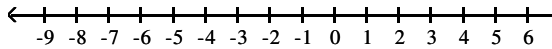
28) $x^2 - 4x - 12 \leq 0$



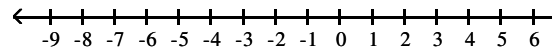
34) $x^2 + 3x \geq 0$



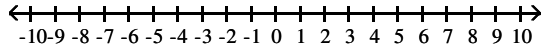
29) $x^2 - 3x \geq 4$



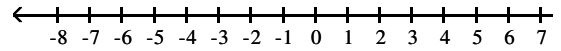
35) $2x^2 + 7x - 15 \geq 0$



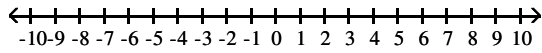
$$36) (x + 7)(x + 5)(x - 3) > 0$$



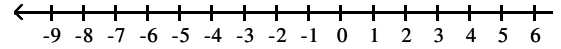
$$42) x^3 + 5x^2 + 11x + 10 \leq 0$$



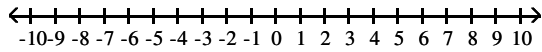
$$37) (x + 6)(x + 1)(x - 6) > 0$$



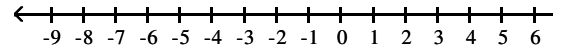
$$43) x^2 - 4x + 4 < 0$$



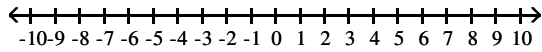
$$38) (x + 5)(x + 3)(x - 2) < 0$$



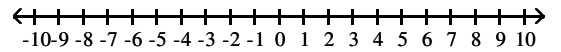
$$44) 2x^2 + 11x - 6 \geq 0$$



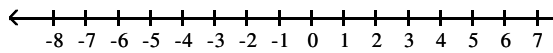
$$39) (x + 5)(x + 4)(x - 7) < 0$$



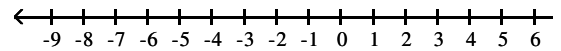
$$45) (x + 5)(x - 3)(x - 4) < 0$$



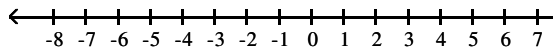
$$40) x^3 - 7x^2 + 2x + 40 \geq 0$$



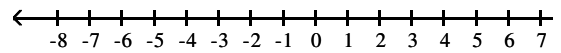
$$46) x^2 + 4x + 4 > 0$$



$$41) x^3 - 5x^2 - 9x + 45 \geq 0$$



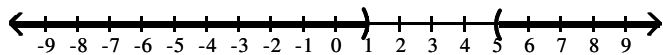
$$47) x^3 - 5x^2 + 2x + 8 \geq 0$$



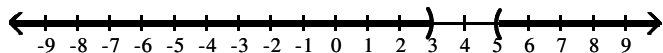
Answer Key

Testname: WORKSHEET7.6A_POLYNOMIALINEQUALITIES_V02

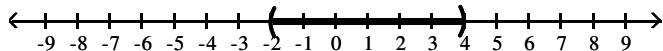
1) $(-\infty, 1) \cup (5, \infty)$



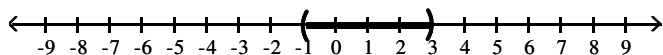
2) $(-\infty, 3) \cup (5, \infty)$



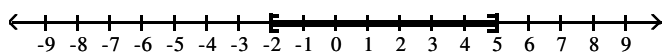
3) $(-2, 4)$



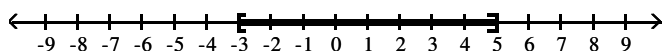
4) $(-1, 3)$



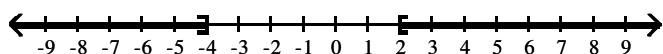
5) $[-2, 5]$



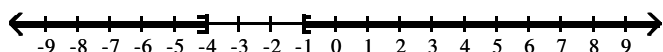
6) $[-3, 5]$



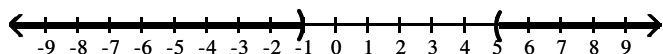
7) $(-\infty, -4] \cup [2, \infty)$



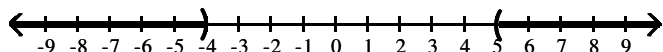
8) $(-\infty, -4] \cup [-1, \infty)$



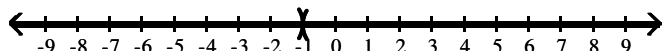
9) $(-\infty, -1) \cup (5, \infty)$



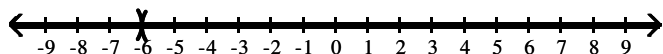
10) $(-\infty, -4) \cup (5, \infty)$



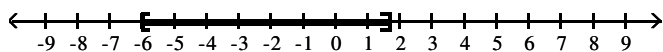
11) $(-\infty, -1) \cup (-1, \infty)$



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



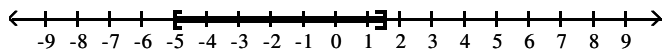
13) $\left[-6, \frac{5}{3}\right]$



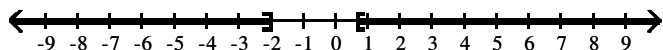
Answer Key

Testname: WORKSHEET7.6A_POLYNOMIALINEQUALITIES_V02

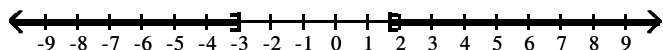
14) $\left[-5, \frac{3}{2}\right]$



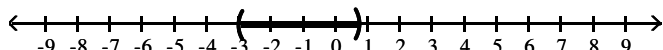
15) $(-\infty, -2] \cup \left[\frac{2}{3}, \infty\right)$



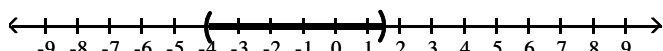
16) $(-\infty, -3] \cup \left[\frac{5}{3}, \infty\right)$



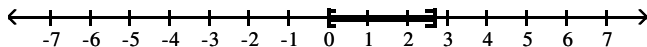
17) $\left(-3, \frac{3}{4}\right)$



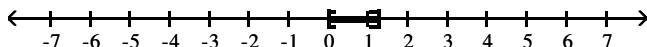
18) $\left(-4, \frac{3}{2}\right)$



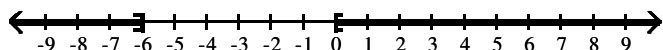
19) $\left[0, \frac{8}{3}\right]$



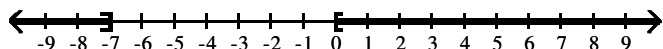
20) $\left[0, \frac{5}{4}\right]$



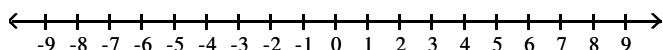
21) $(-\infty, -6] \cup [0, \infty)$



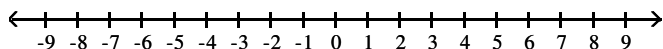
22) $(-\infty, -7] \cup [0, \infty)$



23) $\emptyset$



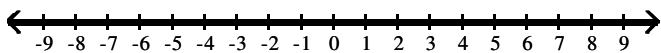
24) $\emptyset$



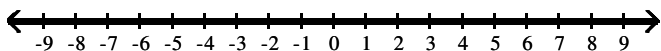
Answer Key

Testname: WORKSHEET7.6A_POLYNOMIALINEQUALITIES_V02

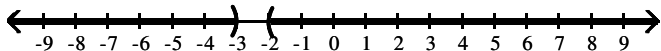
25) $(-\infty, \infty)$



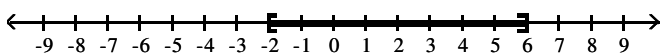
26) $(-\infty, \infty)$



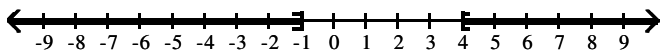
27) $(-\infty, -3) \cup (-2, \infty)$



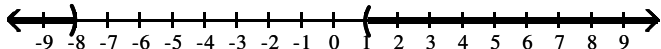
28) $[-2, 6]$



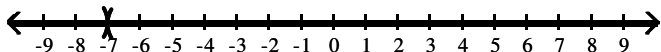
29) $(-\infty, -1] \cup [4, \infty)$



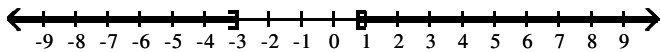
30) $(-\infty, -8) \cup (1, \infty)$



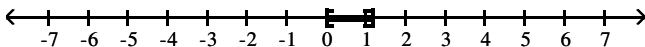
31) $(-\infty, -7) \cup (-7, \infty)$



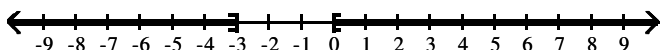
32) $(-\infty, -3] \cup \left[\frac{3}{4}, \infty\right)$



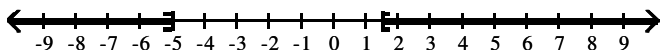
33) $\left[0, \frac{7}{6}\right]$



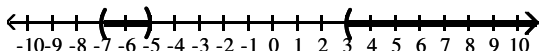
34) $(-\infty, -3] \cup [0, \infty)$



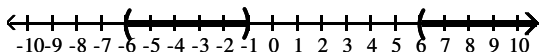
35) $(-\infty, -5] \cup \left[\frac{3}{2}, \infty\right)$



36) $(-7, -5) \cup (3, \infty)$



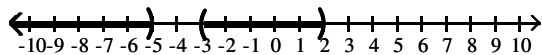
37) $(-6, -1) \cup (6, \infty)$



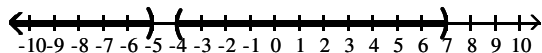
Answer Key

Testname: WORKSHEET7.6A_POLYNOMIALINEQUALITIES_V02

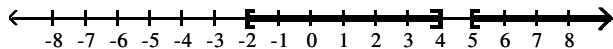
38) $(-\infty, -5) \cup (-3, 2)$



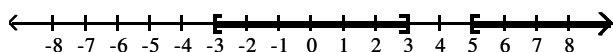
39) $(-\infty, -5) \cup (-4, 7)$



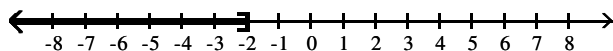
40) $[-2, 4] \cup [5, \infty)$



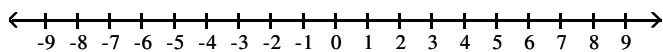
41) $[-3, 3] \cup [5, \infty)$



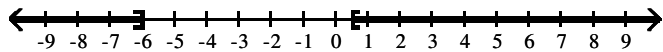
42) $(-\infty, -2]$



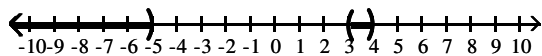
43) $\emptyset$



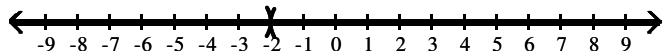
44) $(-\infty, -6] \cup \left[\frac{1}{2}, \infty\right)$



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



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



47) $[-1, 2] \cup [4, \infty)$

