Lesson #4 Assignment   Answer Key

1. For which system(s) of inequalities, if any, will (0, 0) result in a true statement for both, making it a possible solution for the system?
    a. $y > 9$ and $x < 5$
    b. $3x - 2y < 1$ and $y > x - 2$
    c. $y \leq 6 - 2x$ and $3x < 12 - 8y$
    d. $y - 2x \geq 10$ and $5 - 7x > 4y$

2. For which system(s) of inequalities, if any, will (-3, 1) result in a true statement for both, making it a possible solution for the system?
    a. $y > 9$ and $x < 5$
    b. $3x - 2y < 1$ and $y > x - 2$
    c. $y \leq 6 - 2x$ and $3x < 12 - 8y$
    d. $y - 2x \geq 10$ and $5 - 7x > 4y$

3. For which system(s) of inequalities, if any, will (6, -2) result in a true statement for both, making it a possible solution for the system?
    a. $y > 9$ and $x < 5$
    b. $3x - 2y < 1$ and $y > x - 2$
    c. $y \leq 6 - 2x$ and $3x < 12 - 8y$ None
    d. $y - 2x \geq 10$ and $5 - 7x > 4y$

4. For which system(s) of inequalities, if any, will (11, -2) result in a true statement for both, making it a possible solution for the system?
    a. $y > 9$ and $x < 5$
    b. $3x - 2y < 1$ and $y > x - 2$
    c. $y \leq 6 - 2x$ and $3x \leq 12 - 8y$
    d. $y - 2x \geq 10$ and $5 - 7x \geq 4y$

5. Which test point(s), if any, result in true statements for **both** of the inequalities in this system:
    -3x + 2y < 9 and **y < 2x + 6**
    a. $(1, -1)$
    b. $(-2, 5)$
    c. $(2, 2)$
    d. $(-4, -3)$

6. Which test point(s), if any, result in true statements for **both** of the inequalities in this system:
    x + y < 3 and **y < -x**
    a. $(3, -4)$
    b. $(0, 6)$
    c. $(-2, 2)$
    d. $\left(\dfrac{1}{2}, \dfrac{1}{2} \right)$

7. Which test point(s), if any, result in true statements for **both** of the inequalities in this system:
    5x - 2y ≤ 4 and **6x - 8 ≥ -3y**
    a. $(0, -1)$
    b. $(2, 0)$
    c. $(0, 0)$
    d. $(4, -2)$