Name Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_\_\_\_

Algebra U6L7 – Systems of Inequalities (day 2)

**Do-Now**

|  |  |
| --- | --- |
| y = 3x + 5 y = ½ x  | y = 5/4x – 6 y = -2x + 7 |
| y < 3x + 5y > ½x  | y < 5/4x – 6y < -2x + 7 |

**Exploration #1: Systems of THREE Inequalities!**

5x – 4y < 12

y > -3x + 1

y ≥ 3

Two Solutions \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_

Non-solution on a boundary line \_\_\_\_\_\_\_

 Non-solution that is true for 0 inequalities \_\_\_\_\_

 Non-solution that is true for 1 inequality \_\_\_\_\_

 Non-solution that is true for 2 inequalities \_\_\_\_\_

**Example 2: A system with an inequality and an equation**

y ≤ -2x – 1

y = ½x + 3

Name two solutions: \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_

 Name two Non-Solutions: \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_

****

**Example 3: A mysterious system of inequalities**

y ≥ 3x + 5

y < 3x – 1

y

 Name two solutions:

 Name two non-solutions:

**You Try**

y > 2/3x – 5

y < 2/3x + 2

 Name two solutions:

 Name two non-solutions:

**Graph Matching Activity**

1. **\_\_\_\_\_\_\_\_\_**
2. **\_\_\_\_\_\_\_\_\_**
3. **\_\_\_\_\_\_\_\_\_**
4. **\_\_\_\_\_\_\_\_\_**
5. **\_\_\_\_\_\_\_\_\_**
6. **\_\_\_\_\_\_\_\_\_**
7. **\_\_\_\_\_\_\_\_\_**
8. **\_\_\_\_\_\_\_\_\_**
9. **\_\_\_\_\_\_\_\_\_**
10. **\_\_\_\_\_\_\_\_\_**

Name Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_\_\_\_

EXIT TICKET - Algebra U6L7: Systems of Linear Inequalities (day 2)

****Graph the system of inequalities below. Then, identify the shape of the shaded solution region.

**y > x + 1 y ≥ x – 5 y < 3 y ≥ -4**

Name Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_\_\_\_

EXIT TICKET - Algebra U6L7: Systems of Linear Inequalities (day 2)

****Graph the system of inequalities below. Then, identify the shape of the shaded solution region.

**y > x + 1 y ≥ x – 5 y < 3 y ≥ -4**

Name Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_\_\_\_

LIFEWORK - Algebra U6L7: Inequalities Review

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**Lifework KEY**

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