This Study Test is to be completed as preparation for the Unit Test and will be graded as a section of this test.

You are encouraged to use all available resources such as class notes, HW assignments, and the textbook.

Collaboration with classmates is not permitted and copying work is considered cheating and will result in a zero.

\*\* Please show all work on separate paper and attach – no credit will be given for solutions that are missing work \*\*

 7) 8)

12) 13)



 Solution: ( \_\_\_\_ , \_\_\_\_ )

1. Solve the equation for *x*: 
2. Solve the inequality for *x*: . Write your solution on the provided number line.
3. Solve the inequality for *x*: . Write your solution in interval notation.
4. Solve the inequality for *x*: . Write your solution as an inequality.
5. Determine whether Line A and Line B are parallel, perpendicular, or neither.

Line A:  Line B: Connects (-3, 5) and (-1, 4).

1. Calculate all *x* and *y*-intercepts of .
2. Sketch the graph of on the coordinate plane.
3. Sketch the graph of on the coordinate plane.
4. Write the equation of the line that connects (2, -2) and (-2, -4) in slope-intercept form.
5. Write the equation of the line that passes through (1, 6) and is perpendicular to .
6. Solve the system of equations by any method:  
7. Solve the system of equations by sketching their

graphs on the coordinate plane.  

1. Solve the system of inequalities by sketching their

graphs on the coordinate plane.  

1. Fully simplify the exponential expression: 
2. Fully simplify the exponential expression: 
3. Fully factor the polynomial expression: 
4. Fully factor the polynomial expression: 
5. Fully factor the polynomial expression: 
6. Solve the polynomial equation for *x*: 
7. Solve the polynomial equation for *x*: 
8. *x* = \_\_\_\_\_\_\_\_\_
9. \_\_\_\_\_\_\_\_\_\_\_\_
10. \_\_\_\_\_\_\_\_\_\_\_\_
11. \_\_\_\_\_\_\_\_\_\_\_\_
12. *x* = \_\_\_ *y* = \_\_\_
13. *y* = \_\_\_\_\_\_\_\_\_
14. *y* = \_\_\_\_\_\_\_\_\_

11) *x* = \_\_\_ *y* = \_\_\_

1. \_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_
6. *x* = \_\_\_\_\_\_\_\_\_
7. *x* = \_\_\_\_\_\_\_\_\_