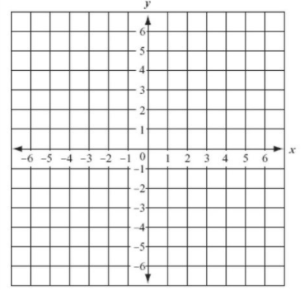
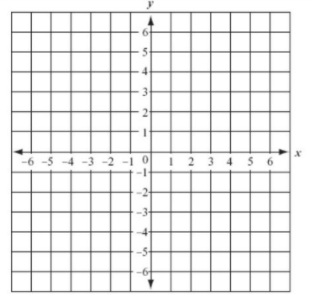
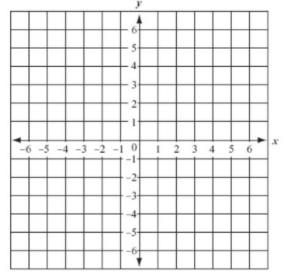
GSE Algebra 1 **HW #7.7** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Write out the following equations given the scenarios.

1. A quadratic that has been shifted right 4 units and down 8 units.
2. A line that has been vertically stretched by a factor of 9 and moved up 3 units.
3. A quadratic that has been reflected, moved left 3 units and up 9 units.
4. A line that has been reflected and moved down 4 units.
5. A quadratic that has been vertically stretched by a factor of 5 and moved up 9 units.
6. An exponential growth that has been shifted 4 right and down 7.
7. An exponential decay that has been reflected over the x-axis and left 3.
8. An exponential growth has been reflected over the y-axis.
9. An exponential decay that has been moved 4 right and up 5.

Graph the linear functions given and be sure to tell what has happened from the parent function y = x.

1. 11) 12)



State whether they are maximums or minimums based off the equation.

1. 14) 15)

Find the vertex of the following. Then list out the axis of symmetry.

1. 17) 18)
2. Which graph is wider? How do you know?
   1. b.

List out all the transformations that have happened from the parent function.

1. 21) 22)

List out the transformations for the following exponentials. Be sure to label as growth or decay.

1. 24) 25)

Graph the following. Be sure to label the critical point and the asymptote.

1. 27) 28)

