Pre-Calc. 11 LG 5A QUIZ (Formative Assessment)

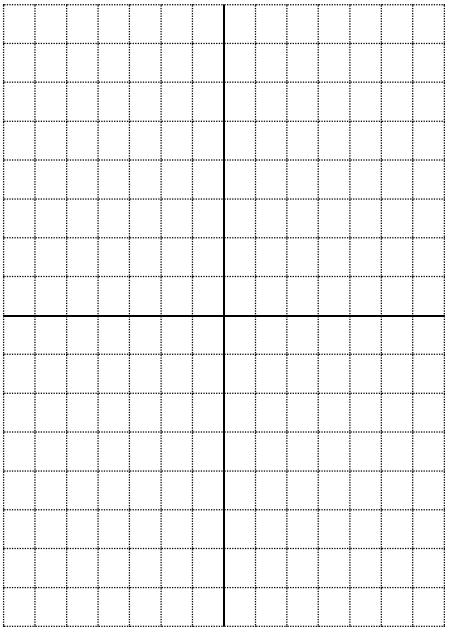
Marking Teacher: _____ **Name:** _____

Student #: _____

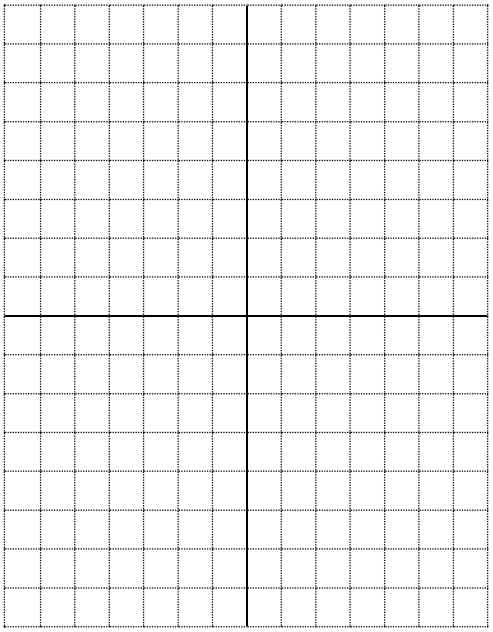
For each function below:

1. Sketch the graph

a) $(x + 3)^2 - 1$



b) $-4(x - 2)^2 + 3$



Complete the table using the above functions:

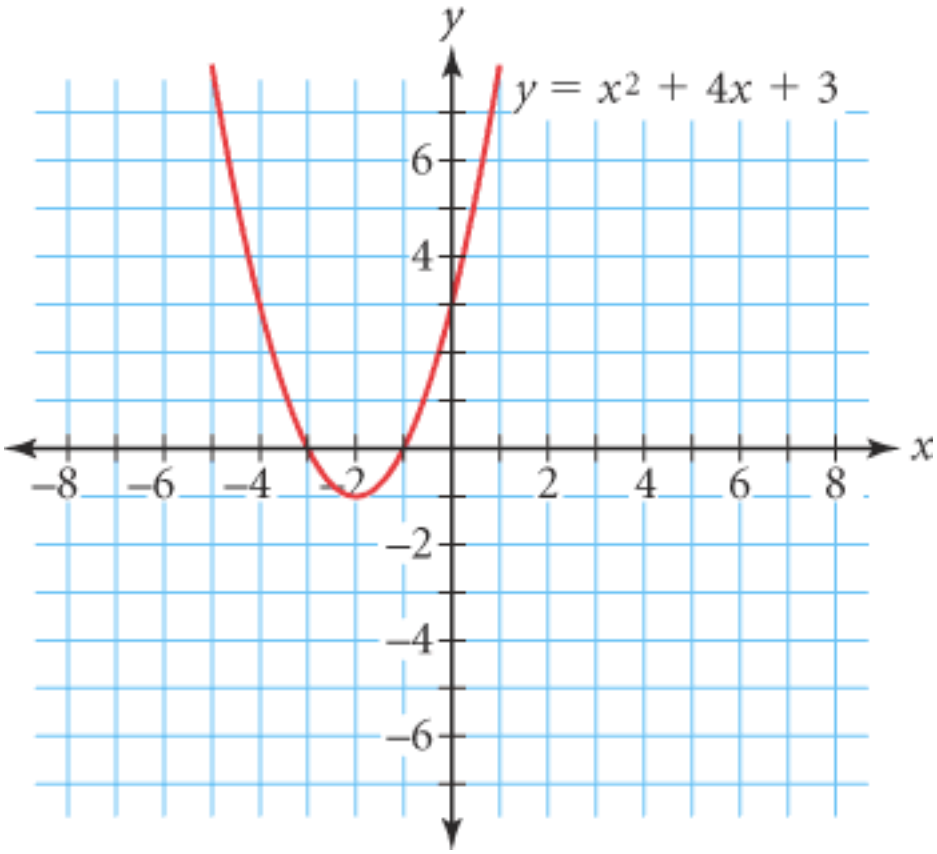
	a	b
2. Axis of symmetry		
3. Domain		
4. Range		

5. The point (-2, 4) is on the graph of $f(x) = x^2$. State the new point on the graph after the following transformations is performed.

a) vertical translation of 3 units down and then a reflection on the *y*-axis.

b) A multiplication of the *x*-value by a factor of 4 and a horizontal translation of 2 units to the left.

For the graph below state:



6. The coordinate of the vertex _____

7. The x-intercepts _____ , and y-intercepts _____

8. Use your graphing calculator to identify the vertex and the direction of opening for $-2x^2 + 9x - 6$. Vertex: _____ Direction opening: _____

A basketball is shot up into the air where its height, h in metres, as a function of time t, in seconds is modeled by the function $h(t) = -.5x^2 + 2x + 2$.

9. When does the ball reach its maximum height? _____

10. What does the h-intercept represent? _____

Directions: ☐ **See me about this** ☐ **Move on to next guide** ☐ **Review and redo**

Pre-Calc. 11 LG 5B QUIZ (Formative Assessment)

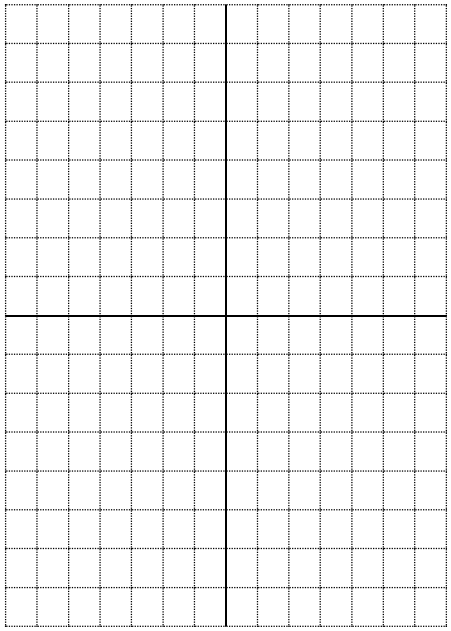
Marking Teacher: _____ **Name:** _____

Student #: _____

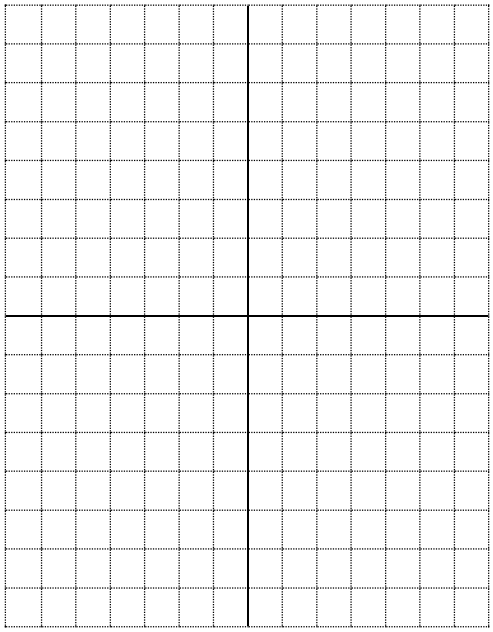
For each function below:

1. Sketch the graph

a) $(x - 3)^2 - 1$



b) $-(x + 2)^2 - 1$



Complete the table using the above functions:

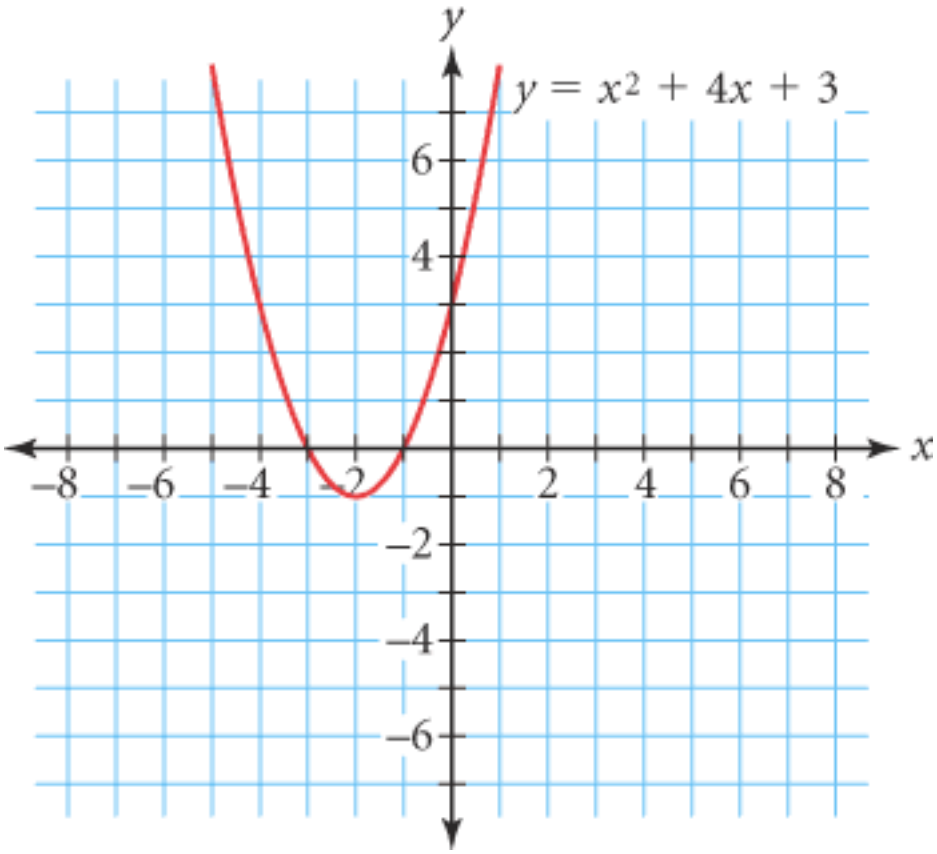
	a	b
2. Axis of symmetry		
3. Domain		
4. Range		

5. The point (3, 9) is on the graph of $f(x) = x^2$. State the new point on the graph after the following transformations is performed.

c) vertical translation of 3 units up and then a reflection on the *x*-axis.

d) A multiplication of the *y*-value by a factor of 2 and a horizontal translation of 7 units to the right.

For the graph below state:



6. The equation of the axis of symmetry _____

7. The domain_____, and the range _____

8. Use your graphing calculator to identify the maximum or minimum value and the x and y intercept(s) for $-1.8x^2 + 5.6x - 21.7$
   a) Maximum or minimum value : _____
   b) x-intercepts _____ y-intercept _____

A hand-glider takes off into the air where its height, h in metres, as a function of time t, in seconds is modeled by the function $h(t) = -.025x^2 + 2.1x + 85$.

9. What is the maximum height the glider reaches? _____

10. What height did the glider take off from? _____

Directions: ☐ **See me about this** ☐ **Move on to next guide** ☐ **Review and redo**