

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

Marking Teacher: \_\_\_\_\_

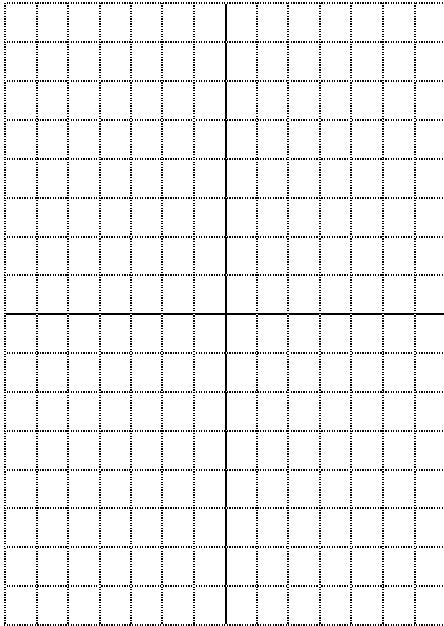
Name: \_\_\_\_\_

Student #: \_\_\_\_\_

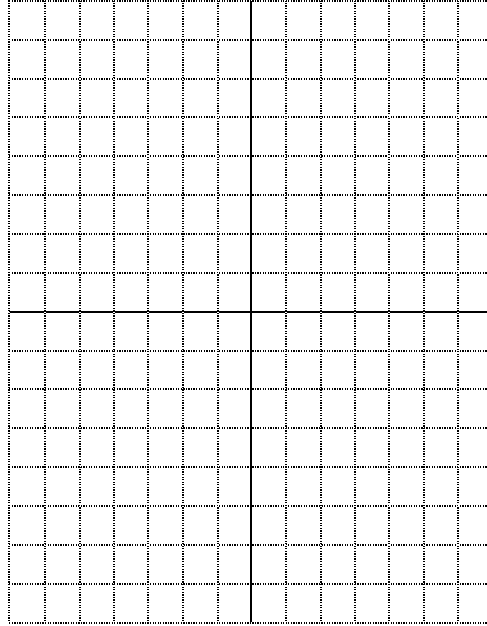
For each function below:

1. Sketch the graph

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



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



Complete the table using the above functions:

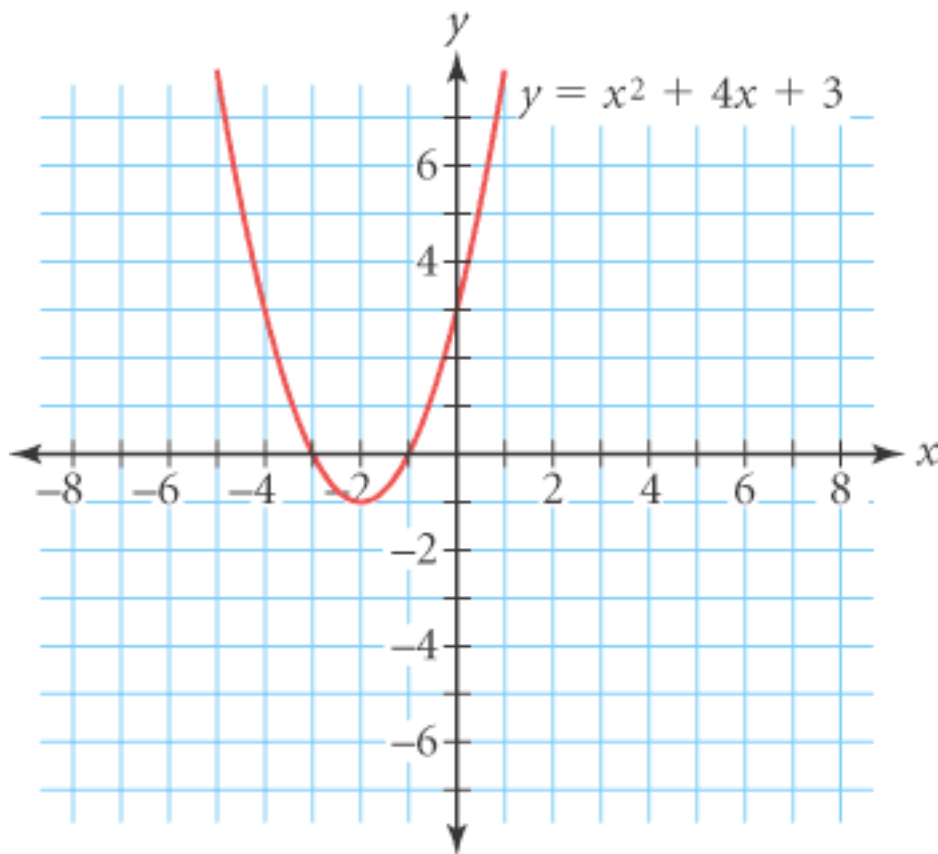
	a	b
2. Axis of symmetry		
3. Domain		
4. Range		

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: \_\_\_\_\_

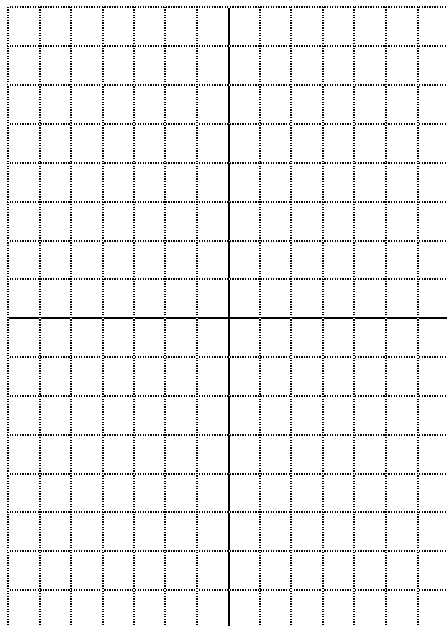
Name: \_\_\_\_\_

Student #: \_\_\_\_\_

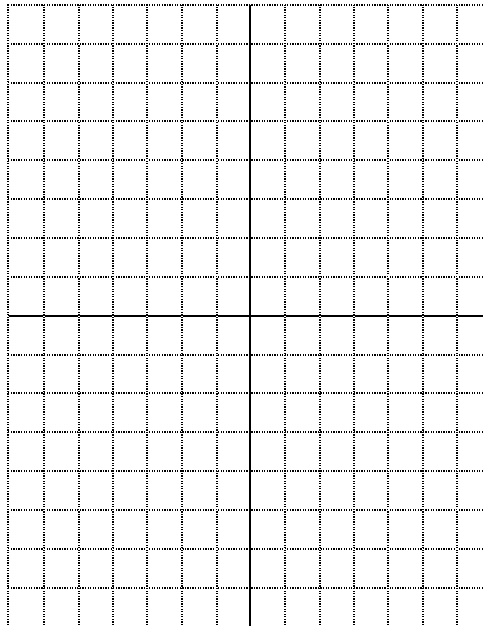
For each function below:

1. Sketch the graph

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



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



Complete the table using the above functions:

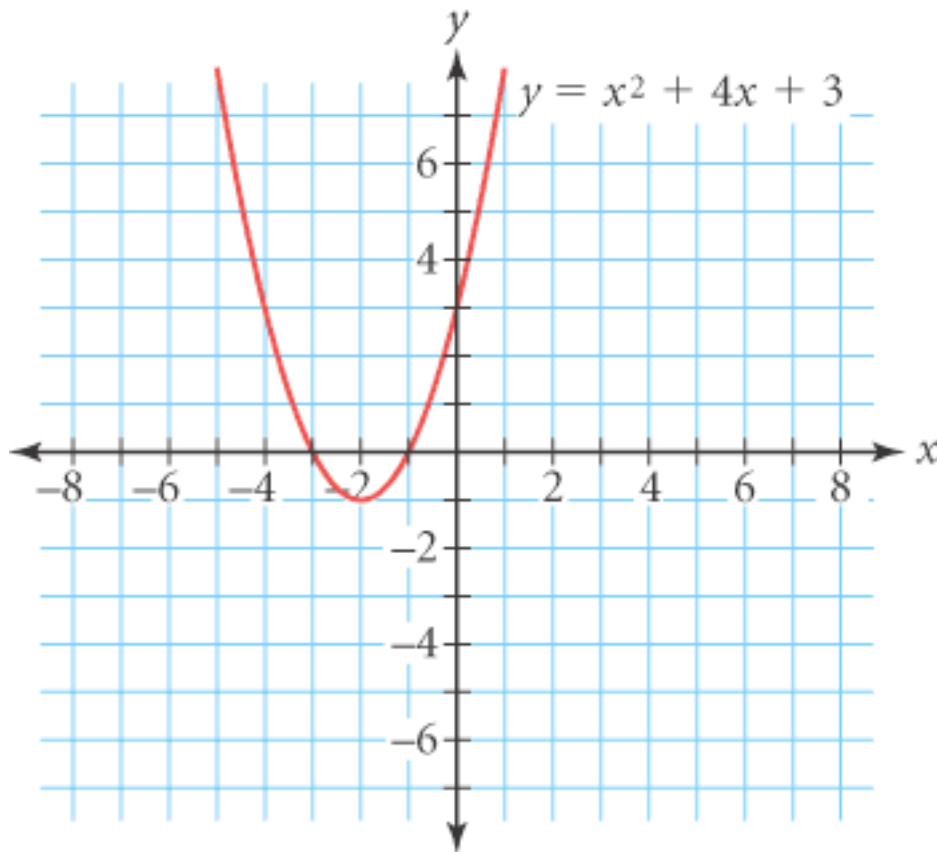
	a	b
2. Axis of symmetry		
3. Domain		
4. Range		

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