

# Mathematics 20P

## UNIT 3- QUADRATIC FUNCTIONS and EQUATIONS

ASSIGNMENT 1 due: Thursday October 2nd Period 5

(Show all working)

1. Put  $6x^2 + 12x + 14$  into:
  - a) function form
  - b) equation or general form
  - c) quadratic form
  
2. For the function  $y + 5 = (x + 4)^2$  state:
  - a. the equation i.e.  $y =$
  - b. the vertex
  - c. the max
  - d. the equation for the axis of symmetry
  - e. The transformation from  $y = x^2$
  
3. Write a new equation for  $y = x^2$  if it is translated 5 units right and 2 units up
  
4. What are the domain and range for the equation  $y - 3 = (x + 2)^2$



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9. For the function  $4x^2 + 8x + 10$
- express in completed square form
  - find the x intercepts
  - Find the vertex
  - what is the minimum of the function?
  - plot the function and all the points for a though c

