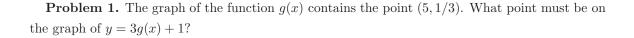
### Name:

# MATH 105 - SEC 001, FALL 2010. QUIZ 7 TIME LIMIT: 20 MINUTES

#### INSTRUCTOR: GERARDO HERNÁNDEZ NOVEMBER 3, 2010

## Good luck!



**Problem 2.** The number of gallons of paint, n = f(A), needed to cover a house is a function of the surface area, in  $ft^2$ . Match each story to one expression.

- a) I figured out how many gallons I needed and then bought two extra gallons just in case.
- b) I bought enough paint to cover my house twice.
- c) I bought enough paint to cover my house and my welcome sign, which measures  $2ft^2$

#### Problem 3.

Find the value of k so that the graph of  $y = (x-3)^2 + k$  passes through the point (6,3)

Problem 4. Find the vertex and axis of symmetry of the graph of

$$v(t) = 2t^2 + 11 \ t - 4$$

**Problem 5.** The temperature of a chemical reaction oscillates between a low of 30°C and a high of 110°C. The temperature is at its lowest point when t = 0 and completes one cycle over a five-hour period.

a) Sketch the temperature, T, against the elapsed time, t, over a ten-hour period.

b) Find the period, the amplitude, and the midline of the graph you drew in part a)