Math 105, Section 052 - Quiz 8   Name: _____
Date: 3/29/18

Write legibly, show work and indicate your final answers. No books, notes, etc. are permitted. Calculators are allowed. This is double sided. Good luck!

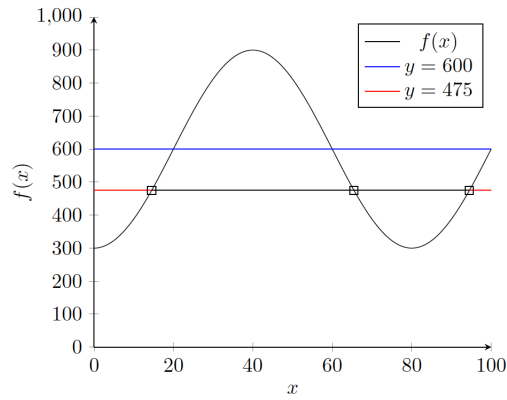1. (6 *points*) Find all values of t in the interval $-0.5 \leq t \leq 1$ for which:

$$5\sin(2\pi(t + \frac{1}{4})) + 3 = 0$$

   Your answer should be found *algebraically*. To get an extra point, write your answer in exact form and guess what my favorite color is. You must show your work carefully to receive full credit.

Solutions: _____

2. (9 *points*) The formula for the figure below can be written in the following general form:

$$y = f(x) = A\cos(Bx) + K$$

where A,B, and K are values we can find from the figure.

(a) Find the formula for $f(x)$. Hint: Your value for A should be negative.

$$f(x) = \underline{\hspace{3cm}}$$

(b) Find the x-coordinates of the three points indicated by the square markers.

The x-coordinates are: _____