QUIZ 3 - MTH 163 - 10 points

Name:_____Date:__

Instructions: Solve the following. Remember to show all work in order to receive full credit.

1. Solve the following equations.
   a) $4x + 2(7 - x) = 5$
   b) $16x^2 = 49$
   c) $\sqrt{3x - 2} = 4 - x$
   d) $x^2 + 6x - 3 = 0$
   e) $|x - 3| = 10$
   f) $\frac{6}{x} + \frac{8}{x+5} = 10$

2. Use a graphing utility to solve
   a) $0 = 12x^3 - 84x^2 + 120x$
   b) $0 = \frac{4}{x-3} - \frac{4}{x} - 1$

3. Solve the inequality either graphically or algebraically.
   a) $x^2 - 2x \geq 3$
   b) $|x - 3| > 4$
   c) $|2x + 7| \leq 12$

4. Perform the operations and write the result in standard form.
   a) $(10 - 3i)(4 + 7i)$
   b) $(2 - i)(2 + i)$

5. Solve for any points of intersection using a graphing utility.

$$\left\{ \begin{array}{l} y = x^3 - 3 \\ y = 5 - 2x \end{array} \right\}$$

- REMEMBER after QUIZ # 4 there will be an exam in the TESTING CENTER
- EXAM # 2 will include concepts from   Quizzes # 3 and # 4