EXAM 4 - MATH 102

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Friday, April 13

YOUR NAME:_____

Read each problem **very carefully** before starting to solve it. Each problem is worth 10 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Solve the equation $(5x + 2)^4 = 81$.

2. Solve the equation $(3x - 5)^{-3/2} = 8$.

3. Use substitution to solve the equation $5\sqrt{x} - x + 36 = 0$.

4. Find the vertex, the opening direction, the intercepts and sketch the graph of the quadratic function $f(x) = x^2 + 2x - 3$.

5. Solve the quadratic inequality $-x^2 + x + 20 \geq 0$.