

Name: _____
Date: _____
Class: _____

Algebra
Unit 9
EC

To be eligible to receive extra credit on the unit test you must have a score below 75. To receive extra credit you must score an 80% or higher on this assignment (anything lower results in no extra credit). If you earn extra credit is calculated in the following manner: $\text{Old Test Score} + (75 - \text{Old Test Score})(2/3) = \text{New Test Score}$. This assignment will not be accepted late for any reason other than missing the day of school it is due in which case it must be turned in the next day you are in school even if you do not have class.

1) [3] If a triangle has a base of $5 + \sqrt{24}$ and a height of $16 - \sqrt{32}$, find the area of the triangle in simplest radical form.

2) [3] Find the solution to the equation: $x^3 - 242 = 622 - 3x^3$

3) [3] Simplify: $4(6\sqrt{2} - 8\sqrt{8}) + 5\sqrt{32} - 14\sqrt{9}$

4) [2] Express in simplest radical form: $\sqrt{21952}$

5) [3] Express in simplest radical form: $9a^2b\sqrt{34992a^5bc^8}$

6) [4] Solve the following: $\sqrt{3x} + 2(2\sqrt{3x} + 7) = 3(4 + \sqrt{3x}) + 14$

7) [3] Graph: $q(x) = 3\sqrt[3]{x} - 4$

8) [4] Find $t(4)$ in simplest radical form: $t(x) = 5\sqrt{9x} - \frac{2x^2}{8} + 4\sqrt{5x} - 8\sqrt[3]{16x} - 9\sqrt{20x}$