

## QUIZ 8 - MATH 102

Friday, April 1

YOUR NAME: \_\_\_\_\_

George Voutsadakis

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Solve the equation  $\frac{100}{x} = \frac{150}{x+5} - 1$ .

2. The ratio of the number of cars with gasoline engines to hybrids sold at a car dealership is 9 to 2. If the dealer sells 12 hybrids one month, then how many gasoline cars did the dealer sell?

3. Simplify the following expressions:

(a)  $\sqrt[5]{a^{30}} =$

(b)  $\sqrt[3]{27z^4} =$

(c)  $\sqrt[3]{48x^3y^8} =$

(d)  $\sqrt{\frac{8}{81}} =$