

## QUIZ 9 - MATH 102

Friday, April 8

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

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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. Simplify each of the following expressions:

(a)  $\frac{27^{-2/3}}{27^{-1/3}} =$

(b)  $(5^4)^{1/2} =$

(c)  $9^{-1}9^{1/2} =$

(d)  $\left(-\frac{8}{27}\right)^{-2/3} =$

2. Perform the following operations and simplify:

(a)  $3\sqrt{50} - 2\sqrt{32} =$

(b)  $(2\sqrt{6} - 3)(2\sqrt{6} + 4) =$

(c)  $(2\sqrt{3} - \sqrt{7})(2\sqrt{3} - \sqrt{7}) =$

3. Rationalize the denominator in

$$\frac{\sqrt{3}}{\sqrt{7}} =$$