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. Evaluate

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

2. Simplify and leave your answer without exponents:

$$\left(\frac{a^{-2/3}b^{4/5}}{a^{-4/3}b^{6/5}}\right)^{-1/2} =$$

3. Multiply and simplify

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

4. Multiply and simplify

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