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 the following expressions, where all variables are representing positive real numbers:

   (a) $\sqrt[3]{48x^3y^8z^{10}} =$

   (b) $\sqrt[4]{\dfrac{x^5y^4}{81z^{12}}} =$

2. Simplify the following expressions, where all variables are representing positive real numbers, leaving your answers with positive exponents:

   (a) $\dfrac{8^{1/2} \cdot 2^{1/2}}{(3^{-6})^{1/3}} =$

   (b) $\left(\dfrac{a^{-3m}b^{-6n}}{a^{9m}}\right)^{-1/3} =$