

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. Write an equation in **general form** for the line ℓ that passes through the point $(-2, 9)$ and is perpendicular to the line ℓ' with equation $7x - 5y = 35$. (**Show all your steps clearly.**)

2. Evaluate and/or simplify the following exponential expressions:

(a) $\left(\frac{16}{81}\right)^{-3/4} =$

(b) $\left(\frac{x^{-3}y^5}{x^5y^{-7}}\right)^{-1/4} =$