

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. A line ℓ' passes through the points $(-7, 1)$, $(3, -4)$. Find an equation for the line ℓ that is perpendicular to the line ℓ' and passes through the point $(2, 5)$.

2. (a) Find the value of

$$\left(-\frac{1}{8}\right)^{-5/3} =$$

- (b) Simplify the following expression showing **all** steps:

$$\frac{a^3(a^7)^{1/2}}{(a^{1/2})^3} =$$