

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. Find an equation for the line ℓ passing through the points $(-2, 7)$ and $(7, -20)$.
2. Find an equation for the line ℓ' that is perpendicular to the line ℓ of the preceding problem and passes through the point $(1, -2)$.
3. (Bonus) What is the y -intercept of ℓ' ?