

YOUR NAME: _____

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Read each problem **very carefully** before starting to solve it. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. The following figure describes an interval in graphical notation.



Provide descriptions of the same interval in:

- (a) set notation [1 point];
- (b) interval notation [1 point].
2. Find the slope of the line ℓ that is parallel to the line ℓ' passing through the points $(-9, 15)$ and $(1, -25)$. [3 points]
3. Find an equation for the line ℓ passing through the point $(-1, 7)$ that is perpendicular to the line ℓ' that has equation $x + 5y = 10$. [5 points]