Read each problem **very carefully** before starting to solve it and do only what is asked. 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. [4 points] Write in interval notation and graph the set

$$\{x : -7 < x \le 1\}.$$

2. [6 points] Find an equation for the line $\ell$, passing through $(1, 10)$, and perpendicular to the line $\ell'$ passing through $(-1, -1)$ and $(8, 2)$.