To solve the first inequality, subtract 3 from both sides and then divide by -2. This will reverse the inequality sign and give you $b \leq 4$. To solve the second inequality, add 1 to both sides and then divide by -1. This will reverse the inequality sign, giving you $b \geq 9$. The solution is all values of b that are either less than or equal to 4 **or** greater than or equal to 9.