Piecewise Functions

Conventions:

Solid disk refers to inclusion of the point or any of $\leq > =$ operators

Hollow disk refers to the exclusion or any of the < > operators

Example 1.

 $\left\{ \begin{array}{ll} 2\; k+1 & -4 < k \leq -2 \\ -2\; k-1 & -2 < k \leq 6 \end{array} \right.$