3. Find all the real values of x which satisfy $x^2-3x+2>0$ and $x^2-2x-4\leq 0$

Soln $\Rightarrow$ $(x^2-3x+2)>0$ and $(x^2-2x-4)\leq 0$

$(x-1)(x-2)>0$ and $x^2-2x+1\leq 5$

$(x<1)$ or $(x>2)$ and $(1-\sqrt{5}\leq x\leq 1+\sqrt{5})$

$\therefore$ $x\in[1-\sqrt{5},1)\cup[1+\sqrt{5},2)$