## Drawings for the file

## http://math.ucr.edu/~res/math145A-2017/aabNewUpdate11.145A.w20.pdf

New Problem 4. In this drawing, the horizontal (red) line is the slice $X \times\{\boldsymbol{b}\}$ and the vertical (blue) line is the slice $\{\boldsymbol{a}\} \times \boldsymbol{Y}$. Observe that the intersections of these lines with the box $\boldsymbol{A} \times \boldsymbol{B}$ are just the corresponding slices in the latter.


Figure 1

New Problem 6(d). The intervals $\boldsymbol{U}_{1}, \boldsymbol{U}_{2}, \boldsymbol{U}_{3}$ and the intersection of all the $\boldsymbol{U}_{\boldsymbol{n}}$ are depicted below. Note that every $\boldsymbol{U}_{\boldsymbol{n}}$ contains the next open set in the sequence and the intersection is the half open interval (0,1].

## 0 <br> 1 <br> 2


$\mathbf{U}_{3}$

intersection

