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I = (a, b)

[MTH402] Let \(\mathbb R\) be with the usual standard topology and let A \subsets\mathbb R\).Then A is open in \(\mathbb R\) if there exists an interval I such that I\subset A. For a,b\(\epsilon\mathbb R, I =
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[MTH402] \(B\)' is the lower limit topology on \(\mathbb R\) if
\(\mathbb B' = {[a,b) : a,b\epsilon\mathbb R; a<b}\)

[MTH402] Let \(\pi_{1}(x, y) =x\) and \(\pi_{2}(x,y) =y \)then \(\pi_{1} : X x Y\rightarrow X \)and \(\pi_{2} : X x X\rightarrow\) Y. The maps \(\pi_{1}\) and \(\pi_{2}\) are called ______________________________
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[MTH402] The countable collection B = { (a, b) : a<b, a,b\(\epsilon\mathbb Q\)} is a ____________________________ for a topology on \(\mathbb R\)
Basis

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Platform

[MTH402] If \(\tau\) is a topology on X, which of these is trueabout \(\tau\)?
Finite intersctions of elements of \(\tau\) are in \(\tau\)

[MTH402] A metric on a set X with a function d : X x X \(\rightarrow\mathbb R\) holds for all but one property in the following:
\(d(x,y) = 0 \)whenever \(\neq\) and \(x,y\epsilon X\)