Signed Ratio.

We assign to the ratio $\frac{|AX|}{|XB|}$ positive sign if the point X is between A and B, and negative if it is outside.
It is easy to see that different points will correspond to different ratios.
If the point X is between A and B, then $0 \le \frac{|AX|}{|XB|} \le \infty$. For any non-negative number we can find a point that correspond to this number. ∞ corresponds to the point B.

If the point X is on the left side of A, then $-1 < \frac{|AX|}{|XB|} \le 0$. For any negative number >-1 we cand find a point to the left of A that gives this ratio.

If the point X is on the right side of B, then $-\infty < \frac{|AX|}{|XB|} < -1$. For any negative number <-1 we cand find a point to the right of B that gives this ratio.
We see that only -1 does not correspond to any ratio.