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INTERSECTION( $A, B, C, D$ )
1   $E \leftarrow B - A$ 
2   $F \leftarrow D - C$ 
    $\triangleright$  Make a vector perpendicular to vector E.
3   $P.x \leftarrow -E.y$ 
4   $P.y \leftarrow E.x$ 
5   $numerator \leftarrow ((A - C) \bullet P) \triangleright$  Calculate dot-product.
6   $denominator \leftarrow (F \bullet P) \triangleright$  Calculate dot-product.
7  if  $denominator \neq 0$ 
8      then  $h \leftarrow numerator/denominator$ 
9          if  $0 < h < 1$ 
10             then  $result := True \triangleright$  There is an intersection.
11             else  $result := False \triangleright$  There is no intersection.
12     else  $result := False \triangleright$  There is no intersection.

```

Figure 2: pseudo-code of the checking for intersections data structure.