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perpendicularity in Euclidean plane

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Two lines in the Euclidean plane are *perpendicular* to each other if and only if they intersect and two of the angles they form are congruent.

This definition on the one in Hilbert's *Grundlagen der Geometrie* (“Ein Winkel, welcher einem seiner Nebenwinkel kongruent ist, heißt ein *rechter Winkel*”).

The *perpendicularity* of l and m is denoted

$$l \perp m.$$

References

- [1] D. HILBERT: *Grundlagen der Geometrie*. Neunte Auflage, revidiert und ergänzt von Paul Bernays. B. G. Teubner Verlagsgesellschaft, Stuttgart (1962).