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Gaussian curvature

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Entry type	Definition
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Synonym	total curvature
Synonym	total normal curvature
Related topic	MeanCurvatureAtSurfacePoint
Defines	mean curvature

The *Gaussian curvature* of a surface at a point p is the product

$$K = \kappa_1 \kappa_2$$

of the two principal curvatures of the surface at p .

The arithmetic mean of the principal curvatures at a point p

$$H = \frac{\kappa_1 + \kappa_2}{2}$$

is called the *mean curvature* of the surface at p .