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Quasi-Newton gradient method with analytical determination of the direction and length of step. (English) [Zbl 0662.65053](#)

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The author presents a quasi-Newton method for determining the minimum of a function $f: R^n \rightarrow R$ continuously differentiable. One gives an algorithm for generating an approximating sequence of the Hessian matrix. Each element of this approximating sequence has the property that the product with the gradient determines not only the step-direction but also the step-length.

Reviewer: [D.I.Duca](#)

MSC:

[65K05](#) Numerical mathematical programming methods

[90C30](#) Nonlinear programming

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[gradient method](#); [determination of step-direction and step-length](#); [quasi-Newton method](#)

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