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Schwefel Function

□ Number of variables: n variables.

□ Definition:

$$f(\mathbf{x}) ::= 418.9829n - \sum_{i=1}^n \left(x_i \sin \sqrt{|x_i|} \right).$$

□ Search domain: $-500 \leq x_i \leq 500, i = 1, 2, \dots, n$.

□ Number of local minima: several local minima.

□ The global minima: $\mathbf{x}^* = (1, \dots, 1), f(\mathbf{x}^*) = 0$.

□ MATLAB Code: [download schw.m](#)

□ Function graph: for $n = 2$.

