



**Why**

Is some scaled form of a differentiable function differentiable?

**Result**

**Proposition 1.** *Suppose  $I \subset \mathbf{R}$  is an interval and  $f : I \rightarrow \mathbf{R}$  is differentiable. Then given any real number  $\lambda \in \mathbf{R}$ , the function  $\lambda g$  is a differentiable functions whose derivative is  $\lambda g'$ .*



