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$$\frac{f(t)-f(s)}{t-s} \leq \frac{f(u)-f(s)}{u-s} \leq \frac{f(u)-f(t)}{u-t}$$
 for convex  $f$ 

 ${\bf Canonical\ name} \quad \ {\bf fracftfstsleqfracfufsusleqfracfuftutForConvexF}$ 

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Author yesitis (13730) Entry type Theorem Classification msc 26A51 If f is convex in (a, b) and if a < s < t < u < b, then

$$\frac{f(t) - f(s)}{t - s} \le \frac{f(u) - f(s)}{u - s} \le \frac{f(u) - f(t)}{u - t}.$$

$$(1)$$