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Applications - Function Domains

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- ▶ $x^2 \leq 4$
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- ▶ Domain: $[-2, 2]$

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- ▶ **Mean Value Theorem:** If f differentiable on (a, b) ,
 $\exists c \in (a, b)$ with:

$$f'(c) = \frac{f(b) - f(a)}{b - a}$$

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- ▶ Basis for advanced mathematics