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Expression for mean value theorem in application of derivatives

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

Derivation for expression of mean value theorem in terms of small increment h in application of derivatives

•

$$b = a + h$$

•

$$b - a = h$$

•

$$f(a + h) = f(a) + hf'(a + \theta h)$$

Range for theta in expression of mean value theorem in terms of small increment h in application of derivatives

$$0 < \theta < 1$$