

# Directional Derivatives

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# Directional Derivatives

- The standard partial derivative is taken in the direction of the variable axis
- This is a special case of a more general idea of the directional derivative
- The text book uses the idea of moving near a campfire for motivation. The directional derivative tells you how the temperature changes as you move

$$\triangleright D_{\frac{\vec{v}}{|\vec{v}|}} f(a, b) = \vec{\nabla} f(a, b) \cdot \frac{\vec{v}}{|\vec{v}|}$$