

Class 10 Highlights

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We discussed on Wednesday what vectors and tensors of two variables mean. For example $v(x,t)$ is the velocity vector because it is dependent on displacement and time. The divergence of a vector is a measure of the rate of movement away or towards the point. For example if the velocity vector is positive it would indicate flow away from a point. We also discussed the importance of commas separating out indices. This is an important and powerful notation that will convey a lot of information in a compact form. This means that it is the partial derivative with respect to the number of indices that follow the comma. The concept of a gradient was introduced which is the partial derivatives of a multivariable function. This means that with a multidimensional input but a one-dimensional output. It is denoted by ∇ .