

Velocity, Speed and Unit Tangent Vector for  
Regular Curve  
Math 473  
Introduction to Differential Geometry  
Lecture 2

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# Velocity and Speed for Regular Curve

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$$|\alpha'(t)| = \sqrt{(x'(t))^2 + (y'(t))^2 + (z'(t))^2}.$$

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$$T(t) = \frac{\alpha'(t)}{|\alpha'(t)|}$$

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- iii) compute the speed,
- iv) compute the unit tangent vector of the curve.

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*Thanks for listening.*