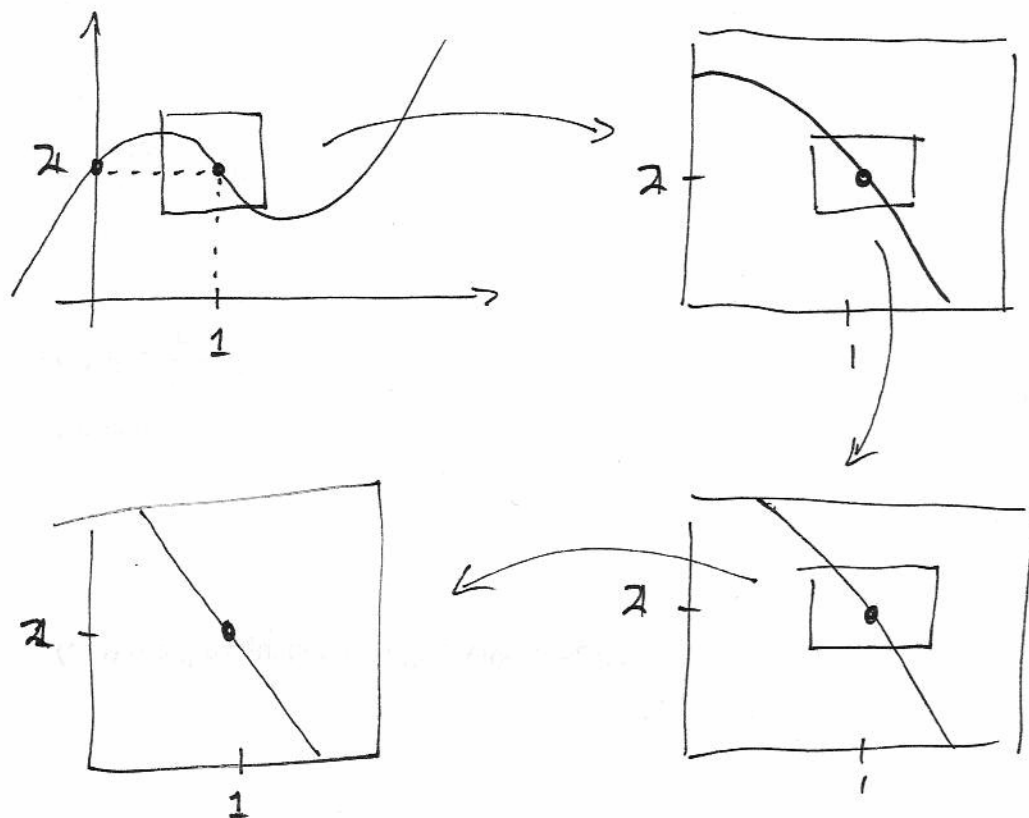


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MAT 122

Instantaneous velocity



Near the point with t -coordinate = 1, the graph looks like a line with slope -1. This means the inst. velocity is -1 m/s .

Tangent line: the line that best resembles the curve at a point.

Instantaneous velocity: The slope of the tangent line.

Suppose a ball is tossed into the air with an initial velocity of 40 m/s and under influence of gravity of -20 m/s^2 . The height at t seconds is given by $h = 40t - 10t^2$.

