Chapter 2 Limits and Derivatives

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| 2.1 Tangent and Velocity Problems | Tangent – is derived from the Latin word tangens, which means touching. Thus a tangent to a curve is a line that touches the curve. In other words the tangent line should have the same direction as the curve at the point of contact. |
| 2.2 The Limit of a Function | “” is read “The limit of f(x) as x approaches a is L”  What can go wrong:   * might be undefined (a whole in the curve) * No limit (point on a curve were curve is switches definition equation) * Limit Exists outside of the rest of the curve   The precise definition of limits (Section 2.4) really means:  For any , there is a , such that any x, if , then .  Computing Limits:  Ex:  If the curve is continuous we can just stick in a for x:    Otherwise we must use the rules above:      Ex:  which is undefined as we cannot divide by 0. |