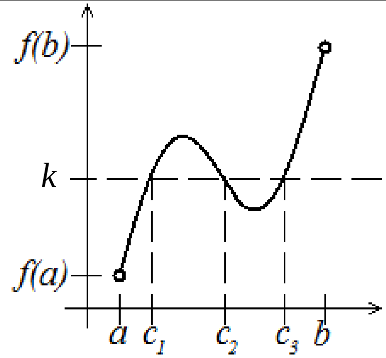
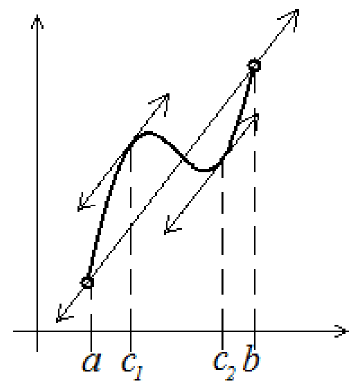
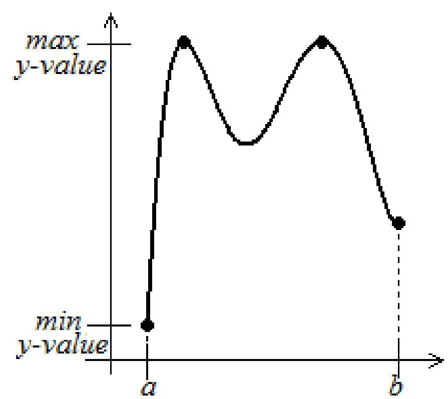
Name	Formal Statement	Restatement	Graph	Notes
IVT	If $f(x)$ is continuous on a closed interval $[a, b]$ and $f(a) \neq f(b)$, then for every value m between $f(a)$ and $f(b)$ there exists at least one value c in (a, b) such that $f(c) = k$.	On a continuous function, you will hit every *y*-value between two given *y*-values at least once.		When writing a justification using the IVT, you must state the function is continuous even if this information is provided in the question.
MVT	If $f(x)$ is continuous on the closed interval $[a, b]$ and differentiable on (a, b), then there must exist at least one value c in (a, b) such that $f'(c) = \frac{f(b) - f(a)}{b - a}$	If conditions are met (very important!) there is at least one point where the slope of the tangent line equals the slope of the secant line.		When writing a justification using the MVT, you must state the function is differentiable (continuity is implied by differentiability) even if this information is provided in the question. (Questions may ask students to justify why the MVT cannot be applied often using piecewise functions that are not differentiable over an open interval.)
EVT	A continuous function $f(x)$ on a closed interval $[a, b]$ attains both an absolute maximum $f(c) \geq f(x)$ for all *x* in the interval and an absolute minimum $f(c) \leq f(x)$ for all *x* in the interval	Every continuous function on a closed interval has a highest *y*-value and a lowest *y*-value.		When writing a justification using the EVT, you must state the function is continuous on a closed interval even if this information is provided in the question.