Rolle's Theorem

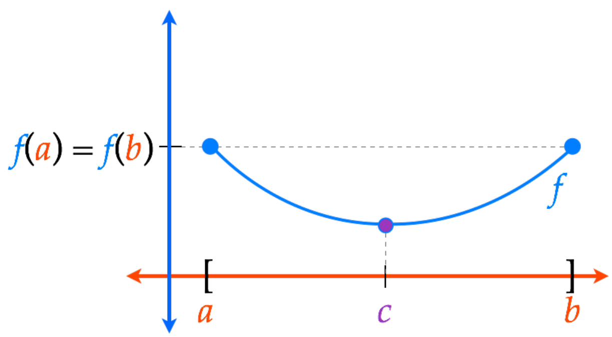
Name ______________________

Date ____________ Period _____

Rolle's Theorem

Let function f be continuous on $[a,b]$ and differentiable on (a,b).

If $f(a)=f(b)$, then there is at least one number c in (a,b) such that $f'(c)=0$.



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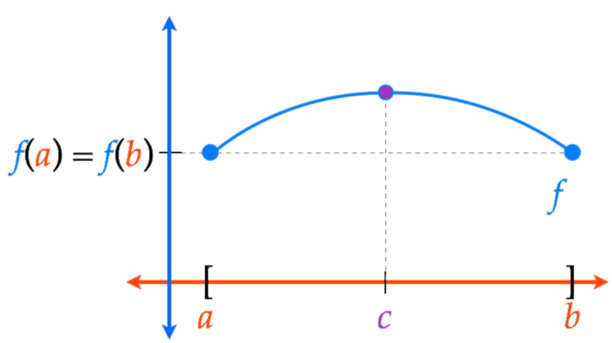

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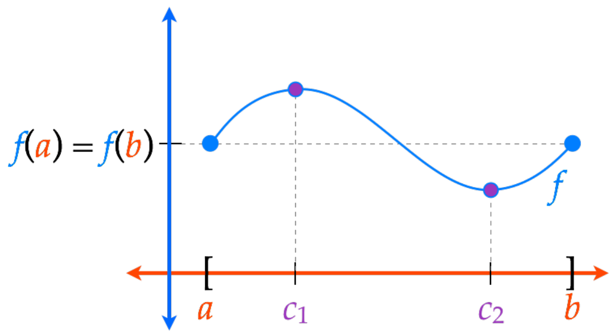
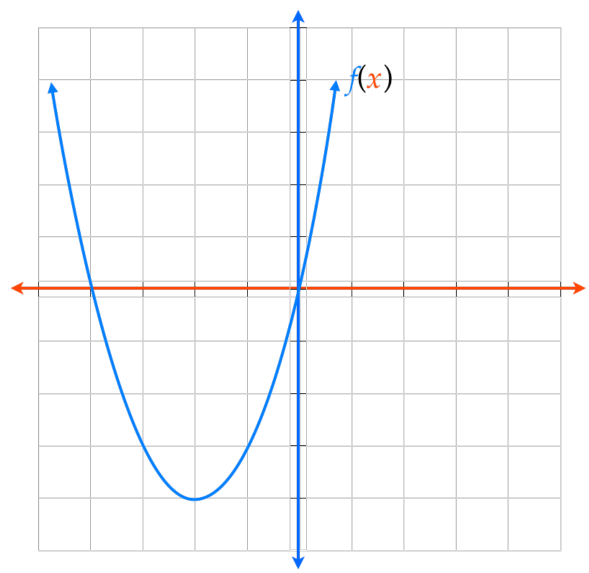


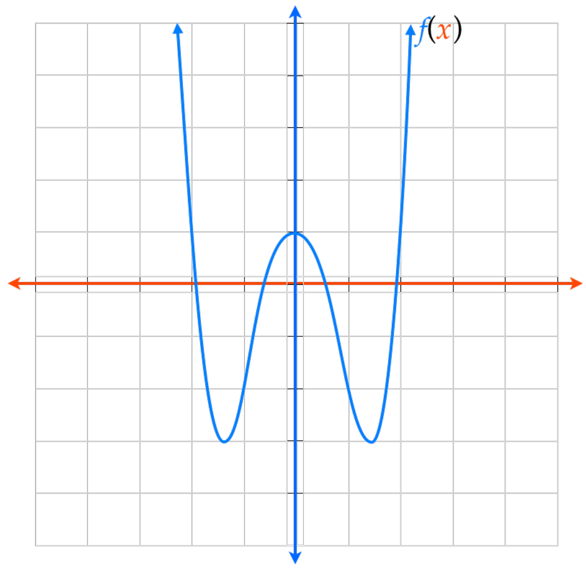
Show Rolle's Theorem is true for…

$f(x) = x^2 + 4x$ on $[-3,-1]$



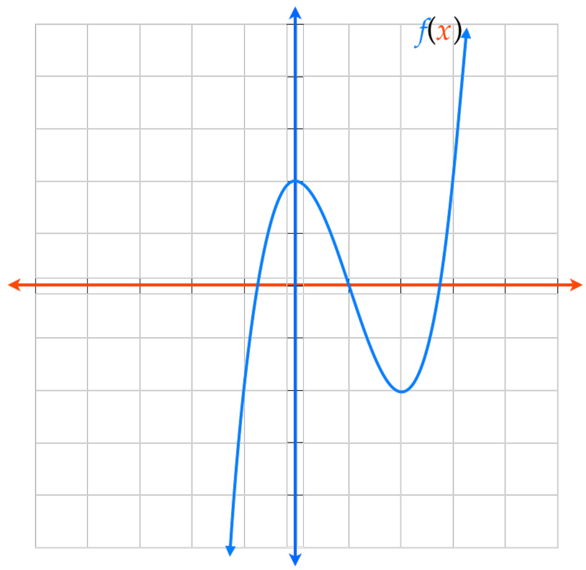
Show Rolle's Theorem is true for…

$f(x) = x^4 - 4x^2 + 1$ on $[-2,2]$



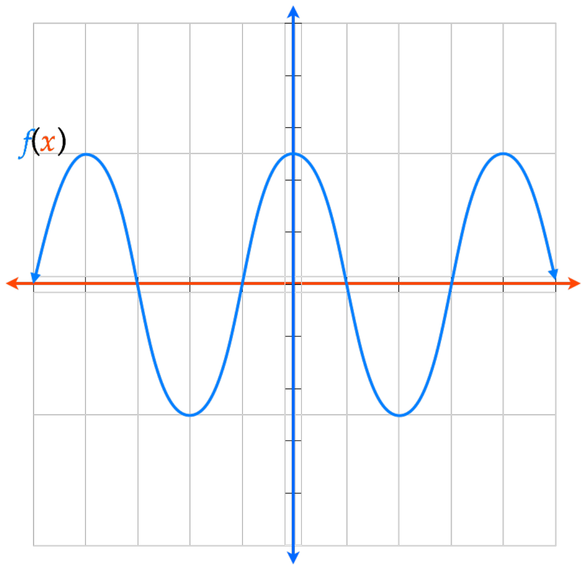
Show Rolle's Theorem is true for…

$f(x) = x^3 - 3x^2 + 2$ on $[0,3]$



Show Rolle's Theorem is true for…

$f(x) = \cos x$ on $[0, 2\pi]$



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