#### func (Function Apply Function)

This element specifies the Function-Apply function, which consists of a function name and an argument acted upon. [Example: Examples of Function-Apply objects include: $\sin(x)$, $tan^{-1}x^{2}$, and $\max\_{0\leq x\leq 1}xe^{-x^{2}}$.

As an example, the func $\lim\_{n\to \infty }x\_{n}$ has [fName](fName.docx) $\lim\_{n\to \infty }$and [e](e.docx) $x\_{n}$:

<m:func>
 <m:fName>
 <m:limLow>
 <m:e>
 <m:r>
 <m:rPr>
 <m:scr m:val="roman"/>
 <m:sty m:val="p"/>
 </m:rPr>
 <m:t>lim</m:t>
 </m:r>
 </m:e>

 <m:lim>
 <m:r>
 <m:t>n&#8594;&#8734;</m:t>
 </m:r>
 </m:lim>
 </m:limLow>
 </m:fName>

 <m:e>
 <m:sSub>
 <m:e>
 <m:r>
 <m:t>x</m:t>
 </m:r>
 </m:e>

 <m:sub>
 <m:r>
 <m:t>n</m:t>
 </m:r>
 </m:sub>
 </m:sSub>
 </m:e>
</m:func>

end example]

|  |
| --- |
| Parent Elements |
| [deg](deg.docx) (§); del (§); [den](den.docx) (§); [e](e.docx) (§); [fName](fName.docx) (§); ins (§); [lim](lim.docx) (§); moveFrom (§); moveTo (§); [num](num.docx) (§); [oMath](oMath.docx) (§); [sub](sub.docx) (§); [sup](sup.docx) (§) |

|  |  |
| --- | --- |
| Child Elements | Subclause |
| [e](e.docx) (Base (Argument)) | § |
| [fName](fName.docx) (Function Name) | § |
| [funcPr](funcPr.docx) (Function Properties) | § |

The following XML Schema fragment defines the contents of this element:

<complexType name="CT\_Func">

 <sequence>

 <element name="[funcPr](funcPr.docx)" [type](type.docx)="CT\_FuncPr" minOccurs="0"/>

 <element name="[fName](fName.docx)" [type](type.docx)="CT\_OMathArg"/>

 <element name="[e](e.docx)" [type](type.docx)="CT\_OMathArg"/>

 </sequence>

</complexType>