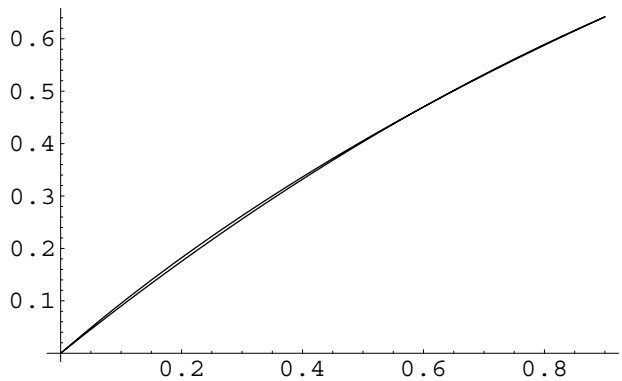
```
In[1]:= L[x_, a_, b_, c_] := ((x - a) (x - b)) / ((c - a) (c - b))

In[2]:= x0 := 0

In[3]:= x1 := 0.6

In[4]:= x2 := 0.9

In[5]:= L0[x_] := L[x, x1, x2, x0]

In[6]:= L1[x_] := L[x, x0, x2, x1]

In[7]:= L2[x_] := L[x, x0, x1, x2]

In[8]:= f0 := 0

In[9]:= f1 := 0.4700036

In[10]:= f2 := 0.6418539

In[11]:= p[x_] = Together[f0 L0[x] + f1 L1[x] + f2 L2[x]]
```

Out[11]= $0.923676\,x - 0.233894\,x^2$

```
In[12]:= f[x_] := Log[x + 1]

In[13]:= Plot[{f[x], p[x]}, {x, 0, 0.9}]
```



Out[13]= - Graphics -

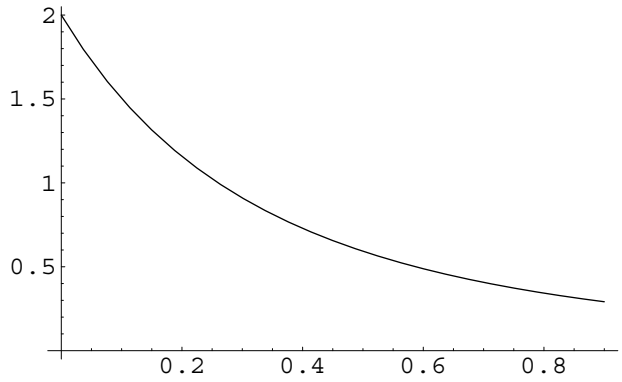
```
In[14]:= p[0.45]
```

Out[14]= 0.368291

```
In[15]:= g[x_] = D[f[x], {x, 3}]
```

Out[15]= $\frac{2}{(1+x)^3}$

In[16]:= **Plot[g[x], {x, 0, 0.9}]**



Out[16]= - Graphics -

In[17]:= **Cotaerror = Abs[(g[0] / 3!) (0.45 - 0) (0.45 - 0.6) (0.45 - 0.9)]**

Out[17]= 0.010125

In[18]:= **Errorex = Abs[f[0.45] - p[0.45]]**

Out[18]= 0.00327298