D[f, x] gives the partial derivative.

For Yaobin Liu

Chengjun @ Canberra, 20120402

```
D[x^n, x]
```

$n\, x^{-1+n}$

In[18]:= $f1 = \frac{C^{1-\varepsilon} - 1}{1 - \varepsilon} + \theta_1 * A * K^{\alpha} (u * H)^{\beta} R^{\Upsilon} - \theta_1 * C - \theta_1 * \delta_k * K + \theta_2 * \eta * S - \theta_2 * R + \theta_3 * B * H * (1 - u) - \theta_3 * \delta_h * H$

Out[18]= $\frac{-1 + C^{1-\varepsilon}}{1 - \varepsilon} - C\, \theta_1 + A\, K^{\alpha}\, R^{\Upsilon}\, (H\, u)^{\beta}\, \theta_1 - K\, \delta_k\, \theta_1 - R\, \theta_2 + S\, \eta\, \theta_2 + B\, H\, (1 - u)\, \theta_3 - H\, \delta_h\, \theta_3$

In[19]:= `D[f1, C]`

Out[19]= $C^{-\varepsilon} - \theta_1$

In[20]:= `D[f1, K]`

Out[20]= $A\, K^{-1+\alpha}\, R^{\Upsilon}\, (H\, u)^{\beta}\, \alpha\, \theta_1 - \delta_k\, \theta_1$

In[21]:= `D[f1, S]`

Out[21]= $\eta\, \theta_2$

In[22]:= `D[f1, H]`

Out[22]= $A\, K^{\alpha}\, R^{\Upsilon}\, u\, (H\, u)^{-1+\beta}\, \beta\, \theta_1 + B\, (1 - u)\, \theta_3 - \delta_h\, \theta_3$

In[23]:= `D[f1, u ]`

Out[23]= $A\, H\, K^{\alpha}\, R^{\Upsilon}\, (H\, u)^{-1+\beta}\, \beta\, \theta_1 - B\, H\, \theta_3$