

```

[ > restart:
[ > (1-K+K*x^2)*diff(psi(x),x$2)-K*x*diff(psi(x),x)+K*(K-1)*psi(x);
      (1 - K + K x^2) \left( \frac{\partial^2}{\partial x^2} \psi(x) \right) - K x \left( \frac{\partial}{\partial x} \psi(x) \right) + K (K - 1) \psi(x)
[ > dsolve((1-K+K*x^2)*diff(psi(x),x$2)-K*x*diff(psi(x),x)+K*(K-1)*psi
      (x)=0,psi(x));
      \psi(x) = _C1 (1 - K + K x^2)^{(3/4)} \text{LegendreP} \left( \sqrt{2 - K} - \frac{1}{2}, \frac{3}{2}, \frac{K x}{\sqrt{K (K - 1)}} \right)
      + _C2 (1 - K + K x^2)^{(3/4)} \text{LegendreQ} \left( \sqrt{2 - K} - \frac{1}{2}, \frac{3}{2}, \frac{K x}{\sqrt{K (K - 1)}} \right)
[ >

```