```
> restart;
   with(plots):
   with(Statistics) :
\gt{CA} := RandomVariable(Uniform(0, 1));
                                                                                                   (1)
                                           CA := R
> p(limit(r, pZ=0, right)) := limit((-1/((-3*log(6)) + (-log(4)*r) + 3*log(4) + log(6))
       * r) * piecewise((-1) + r < pZ, 1, 0) * piecewise((-1/((-3) + r)) + (-1/2) < pZ, 1, 0)
       * piecewise((-r) < pZ, 1, 0) * piecewise(abs((-1/((-3) + r) * r) + 1 + 1/((-3) + r)
       *3) < pZ, 1, 0), pZ = 0, right;
                   (1 - \text{Heaviside}(-1 + r)) \text{ Heaviside}\left(\frac{1}{-3 + r}\right)
                                                                                                   (2)
                                -3 \ln(6) - 2 \ln(2) r + 6 \ln(2) + \ln(6) r
> plot([p(r), PDF(CA, r)], r = 0..1)
           1.2
              1
           0.8
           0.6
           0.4
           0.2
             0 -
                            0.2
                                          0.4
                                                        0.6
                                                                      0.8
                0
                                                   r
```