Proof that Chen's equation (7a) and Toche's equation (7a') are equivalent.

```
> restart: alias(sigma=sig): alias(gamma=gam): alias(delta=delta_s):
```

RHS-Chen corresponds to equation (7a). RHS_toche corresponds to equation (7a').

```
> RHS_toche:=r-rho-(sig+(1-sig)*gam)*(B*x^(mu)-delta_s)-lambda*(B*mu
  *x^(mu-1))*(rho+delta_s-gam*(x/lambda)-B*(1-mu+mu*gam)*x^(mu)+(sig
  +(1-sig)*gam)*(B*x^(mu)-delta_s));
```

$$RHS\_toche := r-\rho-(\sigma+(1-\sigma)\gamma)(B\,x^{\mu}-\delta) - \lambda\,B\,\mu\,x^{(\mu-1)}\left(\rho+\delta-\frac{\gamma\,x}{\lambda}-B\,(1-\mu+\mu\,\gamma)\,x^{\mu}+(\sigma+(1-\sigma)\,\gamma)\,(B\,x^{\mu}-\delta)\right)$$

```
> RHS_chen:=r-rho+(gam*(1+(sig-1)/mu)*x/lambda-(rho+mu*delta_s+gam*(
  sig-1)*delta_s)+gam*mu*B*x^(mu))*B*mu*lambda*x^(mu-1)+gam*(sig-1)*
  (B^(2)*mu*lambda*x^(2*mu-1)-delta_s)-(B*x^(mu)-delta_s)*(sig+(sig+
  mu-1)*B*mu*lambda*x^(mu-1));
```

$$RHS\_chen := r-\rho+\left(\frac{\gamma\left(1+\frac{\sigma-1}{\mu}\right)x}{\lambda}-\rho-\mu\,\delta-\gamma\,(\sigma-1)\,\delta+\gamma\,\mu\,B\,x^{\mu}\right)B\,\mu\,\lambda\,x^{(\mu-1)} + \gamma\,(\sigma-1)\,(B^2\,\mu\,\lambda\,x^{(2\,\mu-1)}-\delta)-(B\,x^{\mu}-\delta)\,(\sigma+(\sigma+\mu-1)\,B\,\mu\,\lambda\,x^{(\mu-1)})$$

```
> is(RHS_toche=RHS_chen);
```

true