

$A := 5$

$B := 0.25$

$C := 0.25$

$in := -2, -1.99..2$

Ampli sans distorsion :

$out0(in) := A \cdot in$

$DH0 := 0$

Ampli à distorsion de rang 2 :

$out2(in) := A \cdot in + B \cdot in^2$

$$DH2(in) := \frac{\sqrt{(B \cdot in^2)^2}}{A}$$

$DH2(0.25) = 0.31\%$

$DH2(0.5) = 1.25\%$

$DH2(1) = 5\%$

Ampli à distorsion de rang 3 :

$out3(in) := A \cdot in + C \cdot in^3$

$$DH3(in) := \frac{\sqrt{(C \cdot in^3)^2}}{A}$$

$DH3(0.25) = 0.08\%$

$DH3(0.5) = 0.63\%$

$DH3(1) = 5\%$

Ampli à distorsion de rangs 2 et 3 :

$out23(in) := A \cdot in + B \cdot in^2 + C \cdot in^3$

$$DH23(in) := \frac{\sqrt{(B \cdot in^2)^2 + (C \cdot in^3)^2}}{A}$$

$DH23(0.25) = 0.32\%$

$DH23(0.5) = 1.4\%$

$DH23(1) = 7.07\%$

out2(in)

out3(in)

out23(in)

out0(in)

