

## New Resist & Damage

Scot MoonShade      Nate ShadowBringer  
@ShadowScott#1234    @PhantomNate#0001

Juan FireCaster      Wolf Stalker  
@jjeastside#7289      @Lucyfer#5969

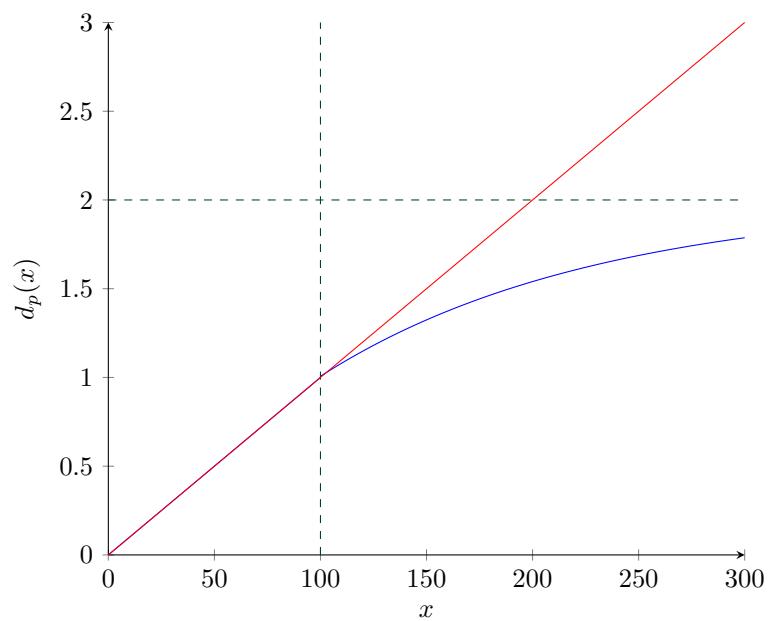
Daniel FrostHeart  
@Mayonnaiseinator#9263

16 April 2021

## Damage

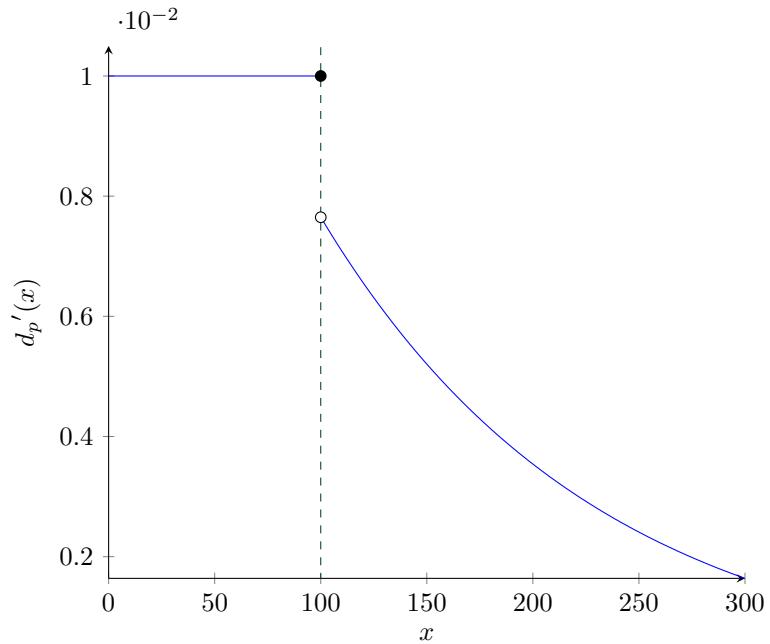
PvP

Raw



$$d_p(x) = \begin{cases} x; & 0 \leq x \leq 100 \\ 2 - \frac{2}{e^{a_1 x - b_1}}; & 100 < x \end{cases}$$

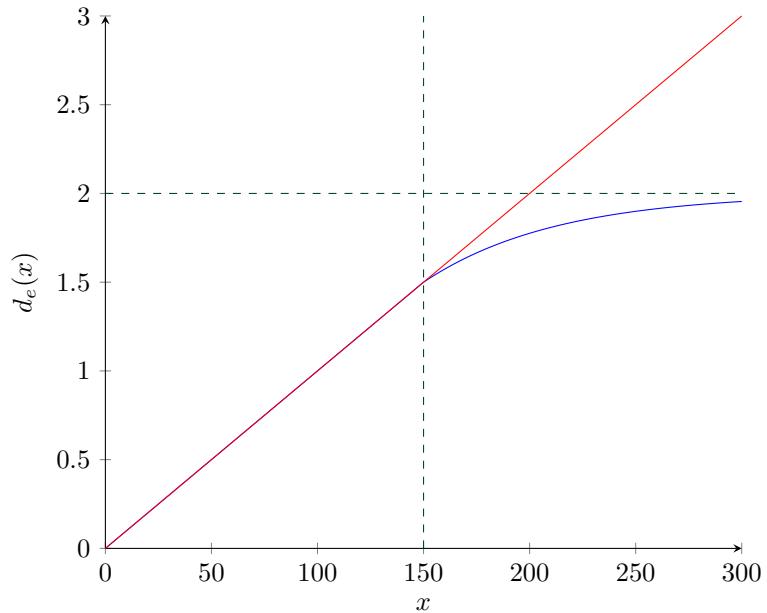
**Rate of Change ( $\Delta$ )**



$$d_p'(x) = \begin{cases} 0.01; & 0 \leq x \leq 100 \\ \alpha_1 \cdot e^{\beta_1 x + \gamma_1}; & 100 < x \end{cases}$$

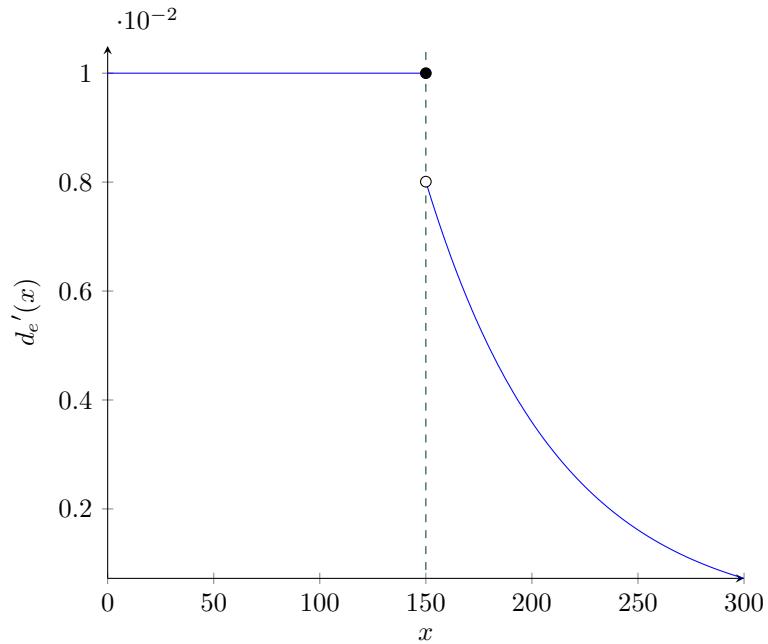
**PvE**

**Raw**



$$d_e(x) = \begin{cases} x; & 0 \leq x \leq 150 \\ 2 - \frac{2}{e^{a_2x-b_2}}; & 150 < x \end{cases}$$

**Rate of Change ( $\Delta$ )**

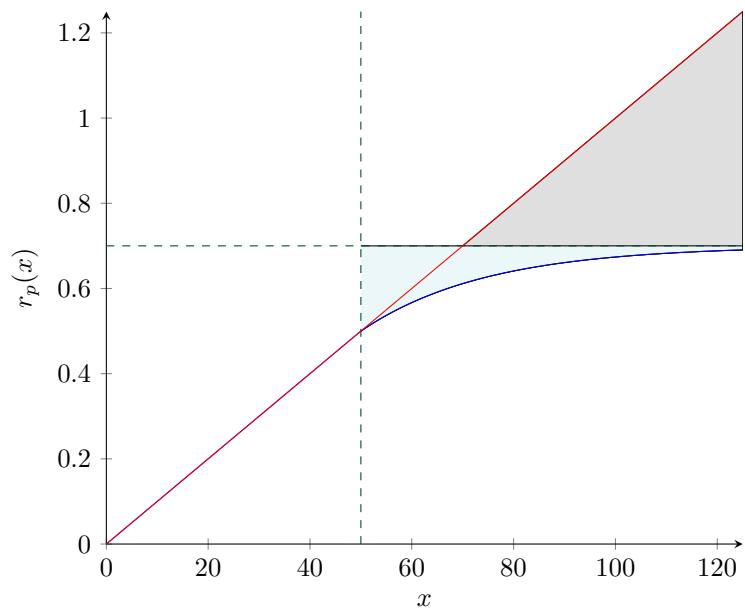


$$d_e'(x) = \begin{cases} 0.01; & 0 \leq x \leq 150 \\ \alpha_2 \cdot e^{\beta_2 x + \gamma_2}; & 150 < x \end{cases}$$

**Resist**

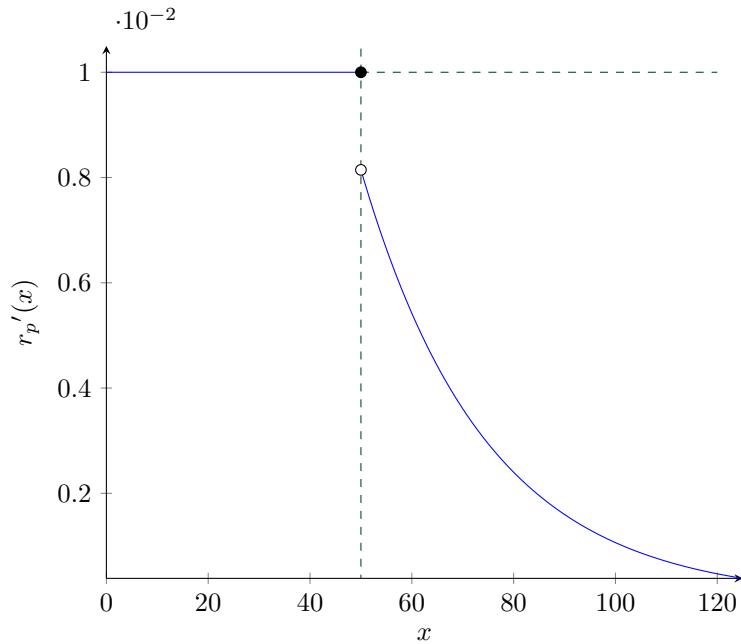
**PvP**

**Raw**



$$r_p(x) = \begin{cases} x; & 0 \leq x \leq 50 \\ 0.7 - \frac{0.7}{e^{a_3x-b_3}}; & 50 < x \end{cases}$$

**Rate of Change ( $\Delta$ )**



$$r_p'(x) = \begin{cases} 0.01; & 0 \leq x \leq 50 \\ \alpha_3 \cdot e^{\beta_3 x + \gamma_3}; & 50 < x \end{cases}$$

## Definition of constants

constant	value
$a_1$	0.00770162
$b_1$	0.0701635
$\alpha_1$	0.01540326
$\beta_1$	-0.00770163
$\gamma_1$	0.0701635
$a_2$	0.0160168
$b_2$	-1.01623692
$\alpha_2$	0.0320336
$\beta_2$	-0.0160168
$\gamma_2$	1.01623692
$a_3$	0.04072764
$b_3$	-0.7836190
$\alpha_3$	0.02850934
$\beta_3$	-0.04072764
$\gamma_3$	0.78361903

## Limit Definitions

The functions follow the following trends, with *absolute* limits.

$$\lim_{x \rightarrow \infty} d(x) = 2$$

$$\lim_{x \rightarrow \infty} r_p(x) = 0.7$$