

Idleon Formulas v0.0.1

on Legends of Idleon v1.14

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1 Introduction

TODO

1.1 Special thanks

Xores, LiuLangZhe, Rockangelz and the wiki team as well discord's mods!

1.2 Last modifications

- Add cost formula for p2w tab (thx LiuLangZhe).
- Add Stamps, Statues and others formulas + some references.
- Init

2 Global

2.1 XP needed to lvl up

$$\begin{aligned} \text{XP}_{\text{Class}} &= \left[\left(15 + \text{lvl}^{1.9} + 11 \times \text{lvl} \right) \times \left(1.208 - \min \left\{ 0.164, \frac{0.215 \times \text{lvl}}{\text{lvl} + 100} \right\} \right)^{\text{lvl}} - 15 \right] \\ \text{XP}_{\text{Skill}} &= \left[\left(15 + \text{lvl}^2 + 15 \times \text{lvl} \right) \times \left(1.225 - \min \left\{ 0.164, \frac{0.135 \times \text{lvl}}{\text{lvl} + 50} \right\} \right)^{\text{lvl}} - 30 \right] \\ \text{XP}_{\text{Smithing}} &= \left[\left(15 + \text{lvl}^2 + 13 \times \text{lvl} \right) \times \left(1.225 - \min \left\{ 0.164, \frac{0.135 \times \text{lvl}}{\text{lvl} + 50} \right\} \right)^{\text{lvl}} - 30 \right] \end{aligned}$$

2.2 Fighting Formulas

2.2.1 Damage done

$$\begin{aligned} \text{Damage}_{\text{max}} &= \\ \text{Damage}_{\text{min}} &= \text{Damage}_{\text{max}} \times \text{Mastery} \end{aligned}$$

2.2.2 Damage taken per hit

$$\text{Damage} = \left[\frac{\text{attack}_{\text{enemy}} - 2.5 \times \text{defense}^{0.8}}{\max \left\{ 1, 1 + \frac{\text{defense}^{1.5}}{100} \times \frac{\text{defense}}{\max\{1, \text{attack}_{\text{enemy}}\}} \right\}} \right]$$

2.2.3 AFK damage cap

TODO

2.2.4 Food Consumption

TODO

2.2.5 Hourly Kill Cap

TODO

2.2.6 % chance to hit depending on the accuracy

TODO

3 Talents

3.1 Star Talents

3.1.1 Stonks!

$$\text{Points} = 130 \times \frac{x}{x + 50}$$

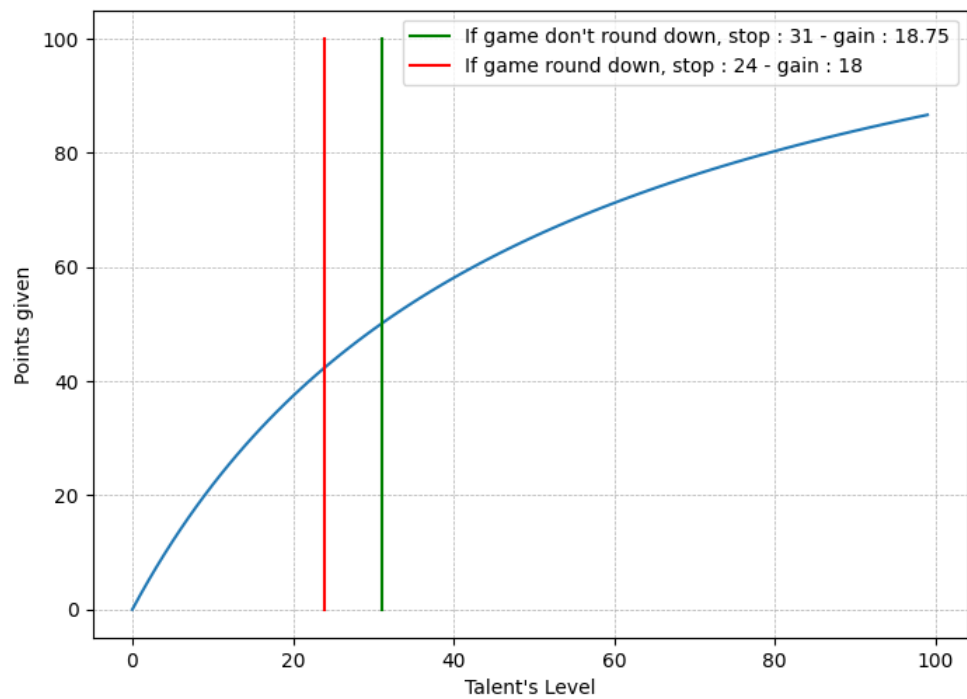


Figure 3.1.1: Where to stop leveling up Stonks!

4 Alchemy

4.1 P2W tab

4.1.1 Cauldron

$$\begin{aligned}\text{regen}_{\%} &= \frac{16 + 0.5 \times (\text{regenLvl} - 1)}{15} \times \text{regenLvl} \times 3 \\ \text{regen}_{\text{Cost}} &= \left\lceil 2500 \left(1.15 - \frac{0.117 \text{regenLvl}}{100 + \text{regenLvl}} \right)^{\text{regenLvl}} \right\rceil \\ \\ \text{newBubble} &= 1 + \frac{\text{newBubbleLvl} \times 2.5}{\text{newBubbleLvl} + 100} \\ \text{newBubble}_{\text{Cost}} &= \left\lceil 3200 \left(1.18 - \frac{0.145}{100 + \text{newBubbleLvl}} \right)^{\text{newBubbleLvl}} \right\rceil \\ \\ \text{boostReqLow}_{\%} &= 70 \times \frac{\text{boostLvl}}{100 + \text{boostLvl}} \\ \text{boostReqLow}_{\text{Cost}} &= \left\lceil 3750 \left(1.2 - \frac{0.14 \text{boostLvl}}{100 + \text{boostLvl}} \right)^{\text{boostLvl}} \right\rceil\end{aligned}$$

4.1.2 Liquid

$$\text{regen}_{\%} = 400 \times \frac{\text{regenLvl}}{100 + \text{regenLvl}}$$

$$\text{regen}_{\text{Cost}} = \left\lceil 2500 \left(1.19 - \frac{0.135 \text{regenLvl}}{100 + \text{regenLvl}} \right)^{\text{regenLvl}} \right\rceil$$

$$\text{cap} = \text{capLvl}$$

$$\text{cap}_{\text{Cost}} = \left\lceil 3500 \left(1.2 - \frac{0.13 \text{capLvl}}{100 + \text{capLvl}} \right)^{\text{capLvl}} \right\rceil$$

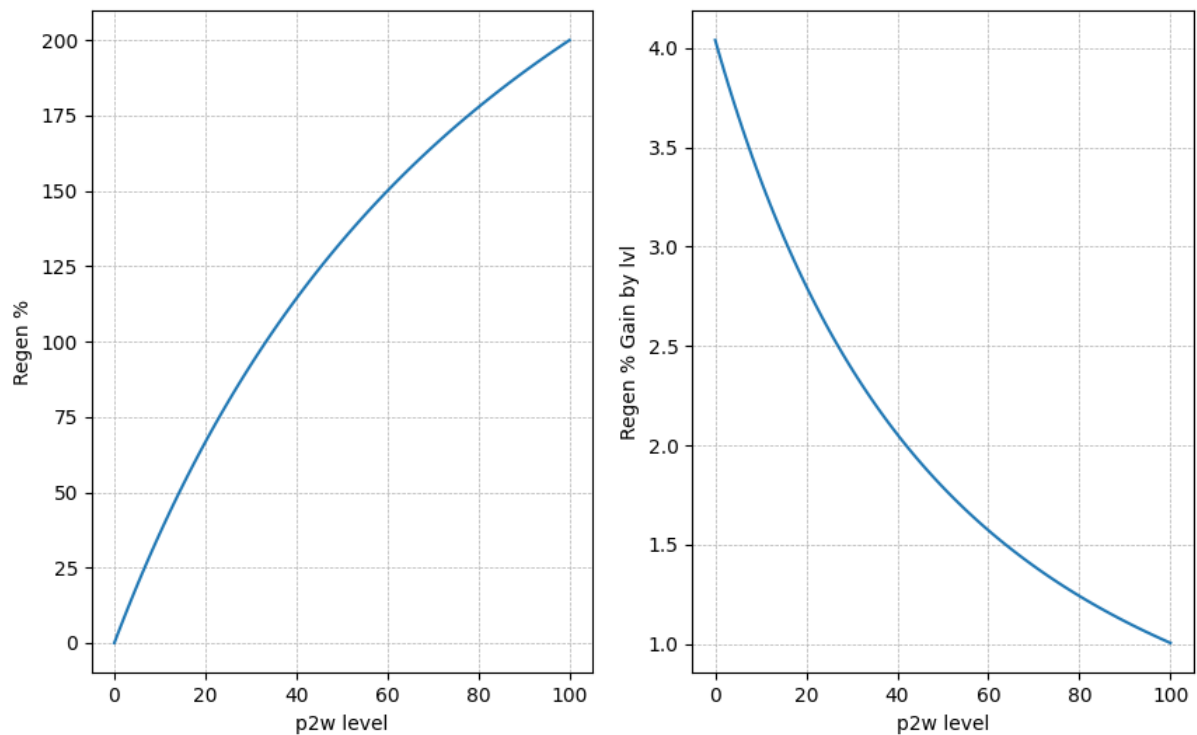


Figure 4.1.1: How much regen you gain with p2w

4.1.3 Vials

$$\text{cap} = \text{capLvl}$$

$$\text{cap}_{\text{Cost}} = \left\lceil 10000 \times 2^{\text{capLvl}} \right\rceil$$

$$\text{rng} = 250 \times \frac{\text{rngLvl}}{100 + \text{rngLvl}}$$

$$\text{rng}_{\text{Cost}} = \left\lceil 5000 \times 1.25^{\text{rngLvl}} \right\rceil$$

Note: rng doesn't work at the moment (v1.14).

4.1.4 Player

$$\begin{aligned}\text{AlchSpeed}_{\%} &= 35 \times \frac{\text{AlchSpeedLvl}}{100 + \text{AlchSpeedLvl}} \\ \text{AlchSpeed}_{\text{Cost}} &= \left\lceil 4000 \left(1.15 - \frac{0.1 \text{AlchSpeedLvl}}{100 + \text{AlchSpeedLvl}} \right)^{\text{AlchSpeedLvl}} \right\rceil \\ \text{ExtraXP}_{\%} &= \frac{11 + 0.5 \times (\text{ExtraXPLvl} - 1)}{10} \times \text{ExtraXPLvl} \\ \text{ExtraXP}_{\text{Cost}} &= \left\lceil 6000 \left(1.15 - \frac{0.09 \text{AlchSpeedLvl}}{100 + \text{AlchSpeedLvl}} \right)^{\text{AlchSpeedLvl}} \right\rceil\end{aligned}$$

4.2 Liquid & Cauldron

4.2.1 Liquid

$$\text{liquid}_{\text{hour}} = \left(1 + \frac{\text{decant}_{\%} + \text{RLP2W}_{\%} + \text{vial}_{\%}}{100} \right) \times \left(1 + \frac{\text{stamp}_{\%} + \sum ((\text{alchLvl} * 2 + 4)^{0.65})}{100} \right)$$

- RLP2W% is P2W Liquid Regen

Multiply $\text{liquid}_{\text{hour}}$ by 1.5 if you bought the gem upgrade.

4.2.2 Cauldron

TODO

4.3 Bubble

TODO

5 Post Office

5.1 Simple Shippin Orders

TODO

5.2 Plan-it Express Orders

TODO

5.3 Dudes Next Door

TODO

6 Other

6.1 Teleportation Cap

$$TP_{cap} = 21(1 + n)$$

Where n is the number of time you bought Daily Teleports.

6.2 Statues

$$\begin{aligned} \text{Cost} &= \left\lfloor \text{lvl}^{1.17} \times 1.35^{\frac{\text{lvl}}{10}} + 1 \right\rfloor \\ \text{Bonus} &= \lfloor \text{Base} \times \text{lvl} \rfloor \end{aligned}$$

6.3 Stamps

$$\text{baseCost}_{\text{Coin}} = \text{Price}_{\text{base}} \times \left(1 - \frac{\text{bribe}}{100}\right)$$

As of v1.14, the bribe effect is 8%, not 5%.

$$\begin{aligned} \text{Cost}_{\text{Coin}} &= \left(1 - \frac{\text{vial}_{\%}}{100}\right) \times \left\lfloor \text{baseCost}_{\text{Coin}} \times \left(i_{10} - \left(\frac{\text{lvl}}{\text{lvl} + 5 * \text{lvlRange}} \times 0.25\right)\right)^{\text{lvl} \times \frac{10}{\text{lvlRange}}} \right\rfloor \\ \text{Cost}_{\text{Material}} &= \left\lfloor \text{baseCost}_{\text{Material}} \times i_8^{\left\lfloor \frac{\text{lvl}}{\text{lvlRange} - 1} \right\rfloor^{0.8}} \right\rfloor \times \max\left\{0.1, 1 - \frac{\text{vial}_{\%}}{100}\right\} \end{aligned}$$

- $\text{vial}_{\%}$ is the Blue Flav vial effect.
- lvlRange is the number of time you can lvl up a stamp before having to pay using materials.
- i_8 and i_{10} are value you can find in the code or in the wiki, look for data-i in the .stampdiv of the stamp you want to know about.

6.4 Forge

TODO

6.5 Shipments

Beware, the prowess effect in each Shipment affect only the concerned skill although it's only written "prowess".

6.5.1 Civil War Memory

$$\begin{aligned}\text{damage}_{\text{base}} &= \text{lvl} \\ \text{fightGain}_{\%} &= 13 \times \frac{\text{lvl} - 25}{\text{lvl} - 25 + 200} \\ \text{crit}_{\%} &= 10 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 200}\end{aligned}$$

6.5.2 Locally Sourced Organs

$$\begin{aligned}\text{maxHP} &= 1 + \left\lfloor \frac{\text{lvl}}{2} \right\rfloor \\ \text{maxHP}_{\%} &= 0.1(\text{lvl} - 25) \\ \text{selfHeal}_{\%} &= 25 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 200}\end{aligned}$$

6.5.3 Magician Starterpack

$$\begin{aligned}\text{maxMP} &= 1 + \left\lfloor \frac{\text{lvl}}{3} \right\rfloor \\ \text{maxHP}_{\%} &= 0.1(\text{lvl} - 25) \\ \text{fasterCD} &= 17 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 200}\end{aligned}$$

6.5.4 Bolvl of Unwanted Stats

$$\begin{aligned}\text{accuracy} &= 0.25\text{lvl} \\ \text{defence} &= 0.3(\text{lvl} - 25) \\ \text{MobExp}_{\%} &= 29 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 170}\end{aligned}$$

6.5.5 Dwarven Supplies

$$\begin{aligned}\text{efficiency}_{\text{mining}} &= 50 \times \frac{\text{lvl}}{\text{lvl} + 200} \\ \text{prowess}_{\%} &= 40 \times \frac{\text{lvl} - 25}{\text{lvl} - 25 + 150} \\ \text{AFKGain}_{\text{mining}} &= 15 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 175}\end{aligned}$$

6.5.6 Blacksmith Box

$$\begin{aligned}\text{XP}_{\text{smithing}} &= 50 \times \frac{\text{lvl}}{\text{lvl} + 200} \\ \text{prodSpeed}_{\%} &= 75 \times \frac{\text{lvl} - 25}{\text{lvl} - 25 + 200} \\ \text{toCraft}_{\%} &= 30 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 150}\end{aligned}$$

6.5.7 Taped Up Timber

$$\begin{aligned}\text{efficiency}_{\text{choppin}} &= 50 \times \frac{\text{lvl}}{\text{lvl} + 200} \\ \text{prowess}_{\%} &= 40 \times \frac{\text{lvl} - 25}{\text{lvl} - 25 + 150} \\ \text{AFKGain}_{\text{choppin}} &= 15 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 175}\end{aligned}$$

6.5.8 Carepack From Mum

$$\begin{aligned}\text{notConsume}_{\%} &= 23 \times \frac{\text{lvl}}{\text{lvl} + 200} \\ \text{hFoodEffect}_{\%} &= 30 \times \frac{\text{lvl} - 25}{\text{lvl} - 25 + 150} \\ \text{pFoodEffect}_{\%} &= 30 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 175}\end{aligned}$$

6.5.9 Sealed Fishheads

$$\begin{aligned}\text{efficiency}_{\text{fishing}} &= 50 \times \frac{\text{lvl}}{\text{lvl} + 200} \\ \text{prowess}_{\%} &= 40 \times \frac{\text{lvl} - 25}{\text{lvl} - 25 + 150} \\ \text{AFKGain}_{\text{fishing}} &= 15 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 175}\end{aligned}$$

6.5.10 Potion Package

$$\begin{aligned}\text{brewSpeed}_{\%} &= 70 \times \frac{\text{lvl}}{\text{lvl} + 200} \\ \text{alchXP}_{\%} &= 60 \times \frac{\text{lvl} - 25}{\text{lvl} - 25 + 150} \\ \text{craniumTime} &= 0.1(\text{lvl} - 100)\end{aligned}$$

6.5.11 Bug Hunting Supplies

$$\begin{aligned}\text{efficiency}_{\text{catching}} &= 50 \times \frac{\text{lvl}}{\text{lvl} + 200} \\ \text{prowess}_{\%} &= 40 \times \frac{\text{lvl} - 25}{\text{lvl} - 25 + 150} \\ \text{AFKGain}_{\text{catching}} &= 15 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 175}\end{aligned}$$

6.5.12 Non Predatory Loot Box

$$\begin{aligned}\text{dropRate}_{\%} &= 50 \times \frac{\text{lvl}}{\text{lvl} + 200} \\ \text{Luck} &= 0.25(\text{lvl} - 25) \\ \text{crystalSpawn}_{\%} &= 65 \times \frac{\text{lvl} - 100}{\text{lvl} - 100 + 200}\end{aligned}$$

References

- [1] LavaFlame2. [Legends of Idleon](#).
- [2] [Idleon Wiki](#).
- [3] Jeremy Criquet. [Idleon Calculator](#).
- [4] Zaghrenaut#9386. [Idleon Post Office Calculator](#).
- [5] LiuLangZhe#9086. [Cumulative Cost Calculator](#).