

REGRESSION

Linear



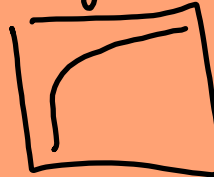
Exponential



Quadratic



Ln Regression



Cubic

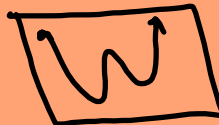
$$x^3 + x^2 + x + c$$



Power $y = ax^b$

Quartic

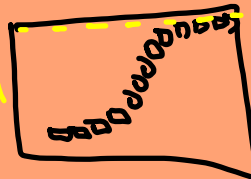
$$x^4 + \dots$$



Logistic

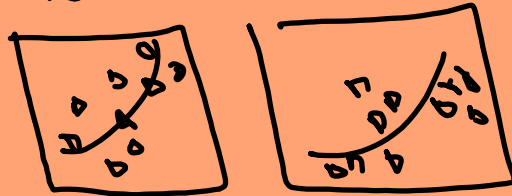
$$y = \frac{c}{1 + ae^{-bx}}$$

carrying
capacity
= c



- 1) $r^2 = 0.9387$ how well the curve fits the data
 $r^2 \approx 0.75$ coefficient of determination
 $r = 0.97$ correlation coefficient measures the strength of the relationship between the x- + y- coordinates.

- 2) points balanced on each side of curve.



- 3) Does it accurately predict the future?

NO

What is CPI in 2024?

yr cpi
2024 |

Know x

1) Table
ctrl-T

2) eq | $x = \#$

When was the CPI 200?

Know y

Graph & Intersect

$f_1 = \text{eq}$

$f_2 = \#$