

Least squares means....

- (1) more rounds
- (2) wizard magic
- (3) $\sum((\text{observations} - \text{calculations})^2)$

$y = a + bx$ is a geochemical model...

- (1) true, because I can fit this with 3 data points
- (2) false, this is just a function
- (3) maybe ?

An objective function is....

- (1) a function that treats all numbers the same way
- (2) at the core of an optimization problem
- (3) different from a subjective function

Levenberg-Marquardt refers to...

- (1) an algorithm
- (2) the name of a famous painter
- (3) a famous geoscientist

Propagation of uncertainties...

- (1) is not very critical
- (2) can be uncertain
- (3) is always accurate

It is impossible to take into account errors in model fitting...

- (1) Not true
- (2) Not always false
- (3) False

Machine learning is a fancy word meaning fitting flexible model to data

- (1) True
- (2) True but...
- (3) The machines will take over anyway.

A machine learning model can be adjusted to data using traditional fitting methods like least square regression

- (1) True
- (2) No, it is a very complex field that has nothing to do with model optimization
- (3) ML models do not necessarily need data, so... ?