

# Linear model

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## Model Summary

### Formula

The model predicts the number of crimes (`num_crimes`) based on the number of mental health apprehensions (`num_mha_reports`) using a linear relationship.

### Equation

$$C = 6748.244 + 2.451 \times MHA$$

## Coefficients and Interpretation

- **C**  
C stands for the predicted number of crimes, which is also the dependent variable in this model.
- **Intercept:** 6748.244  
This suggests that, even when there are no MHA reports, the baseline number of crimes in a division is approximately 6748.
- **MHA:** 2.451  
For each additional MHA report, the model predicts an increase of approximately 2.45 crimes in the corresponding division.

## Interpretation

The model suggests a positive linear relationship between MHA reports and crimes, meaning that as MHA reports increase, the number of crimes tends to increase as well.