



How to Evaluate Predictions?

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How do you evaluate predictions?

Correctness

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Reliability

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Evaluation Metrics

Reliability

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Evaluation Metrics

- Mean Absolute Error (MAE)
- Root Mean Squared Error (RMSE)
- Accuracy
- Precision
- Recall

Reliability

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Evaluation Metrics

- **Mean Absolute Error (MAE)**
- Root Mean Squared Error (RMSE)
- Accuracy
- Precision
- Recall

Reliability

MAE Example

Actual Subscribers	Predicted Subscribers
3231	3110
3821	3804
4005	4097
3343	3298
3560	3376

MAE Example

Actual Subscribers	Predicted Subscribers	Error
3231	3110	121
3821	3804	17
4005	4097	-92
3343	3298	45
3560	3376	184

MAE Example

Actual Subscribers	Predicted Subscribers	Error
3231	3110	121
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Sum of Error		275

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Mean Absolute Error

459/5

91.8

MAE Example

Mean Absolute Error

91.8

Prediction of number of subscribers from
the model generated an average error of **92**

Steps To Calculate MAE



1

Take the predicted values from your model for each data point.

Steps To Calculate MAE



- 1 Take the predicted values from your model for each data point.
- 2 Subtract the corresponding actual values from the predicted values.

Steps To Calculate MAE



- 1 Take the predicted values from your model for each data point.
- 2 Subtract the corresponding actual values from the predicted values.
- 3 Convert the differences in absolute errors

Steps To Calculate MAE



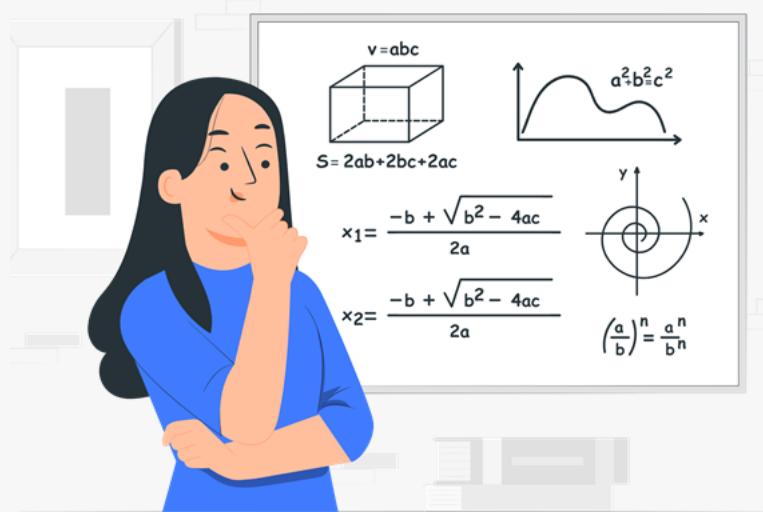
- 1** Take the predicted values from your model for each data point
- 2** Subtract the corresponding actual values from the predicted values
- 3** Convert the differences in absolute errors
- 4** Calculate the sum of absolute errors

Steps To Calculate MAE



- 1** Take the predicted values from your model for each data point
- 2** Subtract the corresponding actual values from the predicted values
- 3** Convert the differences in absolute errors
- 4** Calculate the sum of absolute errors
- 5** Find the mean of absolute errors

Formula To Calculate MAE



$$\text{MAE} = \frac{1}{n} \sum_{i=1}^n |\text{Predicted Value} - \text{Actual Value}|$$

Note: n represents the number of datapoints