



## CheatSheet - Model Evaluation

Command	Syntax	Description	Example
tidymodels	<code>library(tidymodels)</code>	tidymodels is a collection of packages for modeling and machine learning using tidyverse principles.	<code>library(tidymodels)</code>
linear_reg	<code>linear_reg()</code>	<code>linear_reg()</code> specifies a linear regression model by calling the <code>linear_reg()</code> function.	<code>linear_reg() %&gt;% set_engine(engine = "lm")</code>
vfold_cv()	<code>vfold_cv()</code>	<code>vfold_cv()</code> With cross validation, you can have as many as K-folds, so you can build K different models.	<code>vfold_cv(train_data, v = 10)</code>
Regularization	<code>linear_reg(penalty = 0.1, mixture = 0)</code>	<ul style="list-style-type: none"> <li>• Ridge (L2) regularization</li> <li>• Lasso (L1) regularization</li> <li>• Elastic net (mix of L1 and L2) regularization</li> </ul>	<code>linear_reg(penalty = 0.1, mixture = 0) %&gt;% set_engine("glmnet")</code>
		<p>penalty: is the value of lambda.</p> <p>mixture is the proportion of L1 penalty. For ridge regression, specify Mixture = 0. This means there is no L1 penalty and only the L2 penalty is used. For lasso regression, you would use mixture = 1.</p>	<code>linear_reg(penalty = 0.1, mixture = 1) %&gt;% set_engine("glmnet")</code>
grid_regular()	<code>grid_regular(x, ..., levels = 3, original = TRUE, filter = NULL)</code>	<p><code>grid_regular</code> function create grids of tuning parameters. Random and regular grids can be created for any number of parameter objects.</p> <p>x A param object, list, or parameters.</p> <p>... One or more param objects (such as <code>mtry()</code> or <code>penalty()</code>). None of the objects can have <code>unknown()</code> values in the parameter ranges or values.</p> <p>levels An integer for the number of values of each parameter to use to make the regular grid. 1</p> <p>original should the parameters be in the original units or in the</p>	<code>grid_regular(levels = 50, penalty(range = c(-3, 0.3)))</code>

transformed space (if any)?

filter should the parameters be filtered prior to generating the grid.

size A single integer for the total number of parameter value combinations returned for the random grid.

show_best()	show_best(x, metric = NULL, n = 5, ...)	show_best function, displays the top sub-models and their performance estimates.	show_best(lasso_grid, metric = "rmse")
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## Author(s)

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## Changelog

Date	Version	Changed by	Change Description
2021-08-06	1.0	Amrutha Rao	Initial Version
2022-11-16	1.1	Geetika Pal	Updated the logo