

Command	Explanation
<code>lm()</code>	runs a linear regression
<code>predict()</code>	calculate predicted value
<code>residuals()</code>	calculates residuals of regression

Examples

```
regression <- lm(y ~ x)
```

OLS estimation, regresses vector `y` on `x`, saves results as `regression`.

```
regression <- lm(y ~ x, data = df)
```

OLS estimation, regresses variable `y` on `x` from data frame `df`, saves results as `regression`.

```
regression <- lm(y ~ x + z, data = df)
```

OLS estimation, regresses variable `y` on `x` and `z` from data frame `df`, saves results as `regression`.

```
prednums <- data.frame(x = 2, z = 4)
```

```
predict(regression, prednums)
```

Plugs $x = 2$ and $z = 4$ into the regression, generating predicted value for y .

```
residuals(regression)[7]
```

Shows the residual of the 7th observation for model `regression`.

```
df$logx = log(df$x)
```

Takes the logarithm of variable `x` from data frame `df` and saves it back into the data frame as `logx`.