

Regression Example

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Create data

```
x<-rnorm(100)
y<-rnorm(100,2,.5)+x
```

Run regression analysis

```
xy.reg<-lm(y~x)
summary(xy.reg)
```

```
##
## Call:
## lm(formula = y ~ x)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.46508 -0.40143 -0.01706  0.34779  1.27728
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   1.92680    0.05159   37.35  <2e-16 ***
## x             1.03168    0.04779   21.59  <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5118 on 98 degrees of freedom
## Multiple R-squared:  0.8262, Adjusted R-squared:  0.8245
## F-statistic:  466 on 1 and 98 DF,  p-value: < 2.2e-16
```

Plot with regression line

```
plot(x,y)
abline(xy.reg)
```

