

# mml87\_logit

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Estimating logit parameters using the `glm()` function

Search

execution

```
dag = randDag(15, 3)
cpts = randCPTs(dag, 2, 1)
sampleSize = 10000
data = rbn(cpts, sampleSize)
y = "V1"
#x = c("V2", "V3")
x = c()
yIndex = which(names(data) == y)
xIndices = which(names(data) %in% x)
arities = sapply(data, nlevels)
names(arities) = c()
dataNumeric = factor2numeric(data)
vars = names(data)
mml_logit(data, arities, sampleSize, x, y)
```

```
## [1] 2199.238
```

```
forward_greedy(data, arities, vars, sampleSize, y, score = mml_logit, dataNumeric = dataNumeric, debug = FALSE)
```

```
## Search: Forward greedy with mmlLogit
## 0 parent: 2199.238
## parents = V4 : 2165.414
## parents = V5 : 1775.475
## parents = V8 : 2201.8
## parents = V10 : 2202.165
## parents = V2 : 2197.691
## parents = V3 : 2201.097
## parents = V11 : 2200.718
## parents = V13 : 2201.289
## parents = V6 : 2200.684
## parents = V7 : 2201.789
## parents = V12 : 2200.922
## parents = V14 : 2201.888
## parents = V9 : 2202.028
## parents = V15 : 2182.817
## add V5 into mb
## current mb is { V5 } with msg len 1775.475
## -----
## parents = V5 V4 : 3723.362
## parents = V5 V8 : 1777.876
## parents = V5 V10 : 1778.134
```

```

## parents = V5 V2 : 1778.358
## parents = V5 V3 : 1777.986
## parents = V5 V11 : 1777.639
## parents = V5 V13 : 1777.065
## parents = V5 V6 : 1777.009
## parents = V5 V7 : 1777.426
## parents = V5 V12 : 1776.651
## parents = V5 V14 : 1778.199
## parents = V5 V9 : 1778.377
## parents = V5 V15 : 1758.532
## add V15 into mb
## current mb is { V5 V15 } with msg len 1758.532
## -----
## parents = V5 V15 V4 : 3206.267
## parents = V5 V15 V8 : 1793.971
## parents = V5 V15 V10 : 1813.425
## parents = V5 V15 V2 : 1804.348
## parents = V5 V15 V3 : 1809.646
## parents = V5 V15 V11 : 1815.871
## parents = V5 V15 V13 : 1825.806
## parents = V5 V15 V6 : 1772.707
## parents = V5 V15 V7 : 1819.395
## parents = V5 V15 V12 : 1796.577
## parents = V5 V15 V14 : 1801.358
## parents = V5 V15 V9 : 1799.952
## Stop! No better choice for MB!

## [1] "V5"  "V15"

# fim
# log(det(fim))
# logDeterminant(fim)*2

```