> summary(trainData)

Id MSSubClass MSZoning LotFrontage LotArea Street Alley LotShape

Min. : 1.0 Min. : 20.0 C (all): 10 Min. : 21.00 Min. : 1300 Grvl: 6 Grvl: 50 IR1:484

1st Qu.: 365.8 1st Qu.: 20.0 FV : 65 1st Qu.: 59.00 1st Qu.: 7554 Pave:1454 Pave: 41 IR2: 41

Median : 730.5 Median : 50.0 RH : 16 Median : 69.00 Median : 9478 NA's:1369 IR3: 10

Mean : 730.5 Mean : 56.9 RL :1151 Mean : 70.05 Mean : 10517 Reg:925

3rd Qu.:1095.2 3rd Qu.: 70.0 RM : 218 3rd Qu.: 80.00 3rd Qu.: 11602

Max. :1460.0 Max. :190.0 Max. :313.00 Max. :215245

NA's :259

LandContour Utilities LotConfig LandSlope Neighborhood Condition1 Condition2 BldgType

Bnk: 63 AllPub:1459 Corner : 263 Gtl:1382 NAmes :225 Norm :1260 Norm :1445 1Fam :1220

HLS: 50 NoSeWa: 1 CulDSac: 94 Mod: 65 CollgCr:150 Feedr : 81 Feedr : 6 2fmCon: 31

Low: 36 FR2 : 47 Sev: 13 OldTown:113 Artery : 48 Artery : 2 Duplex: 52

Lvl:1311 FR3 : 4 Edwards:100 RRAn : 26 PosN : 2 Twnhs : 43

Inside :1052 Somerst: 86 PosN : 19 RRNn : 2 TwnhsE: 114

Gilbert: 79 RRAe : 11 PosA : 1

(Other):707 (Other): 15 (Other): 2

HouseStyle OverallQual OverallCond YearBuilt YearRemodAdd RoofStyle RoofMatl

1Story :726 Min. : 1.000 Min. :1.000 Min. :1872 Min. :1950 Flat : 13 CompShg:1434

2Story :445 1st Qu.: 5.000 1st Qu.:5.000 1st Qu.:1954 1st Qu.:1967 Gable :1141 Tar&Grv: 11

1.5Fin :154 Median : 6.000 Median :5.000 Median :1973 Median :1994 Gambrel: 11 WdShngl: 6

SLvl : 65 Mean : 6.099 Mean :5.575 Mean :1971 Mean :1985 Hip : 286 WdShake: 5

SFoyer : 37 3rd Qu.: 7.000 3rd Qu.:6.000 3rd Qu.:2000 3rd Qu.:2004 Mansard: 7 ClyTile: 1

1.5Unf : 14 Max. :10.000 Max. :9.000 Max. :2010 Max. :2010 Shed : 2 Membran: 1

(Other): 19 (Other): 2

Exterior1st Exterior2nd MasVnrType MasVnrArea ExterQual ExterCond Foundation BsmtQual BsmtCond

VinylSd:515 VinylSd:504 BrkCmn : 15 Min. : 0.0 Ex: 52 Ex: 3 BrkTil:146 Ex :121 Fa : 45

HdBoard:222 MetalSd:214 BrkFace:445 1st Qu.: 0.0 Fa: 14 Fa: 28 CBlock:634 Fa : 35 Gd : 65

MetalSd:220 HdBoard:207 None :864 Median : 0.0 Gd:488 Gd: 146 PConc :647 Gd :618 Po : 2

Wd Sdng:206 Wd Sdng:197 Stone :128 Mean : 103.7 TA:906 Po: 1 Slab : 24 TA :649 TA :1311

Plywood:108 Plywood:142 NA's : 8 3rd Qu.: 166.0 TA:1282 Stone : 6 NA's: 37 NA's: 37

CemntBd: 61 CmentBd: 60 Max. :1600.0 Wood : 3

(Other):128 (Other):136 NA's :8

BsmtExposure BsmtFinType1 BsmtFinSF1 BsmtFinType2 BsmtFinSF2 BsmtUnfSF TotalBsmtSF

Av :221 ALQ :220 Min. : 0.0 ALQ : 19 Min. : 0.00 Min. : 0.0 Min. : 0.0

Gd :134 BLQ :148 1st Qu.: 0.0 BLQ : 33 1st Qu.: 0.00 1st Qu.: 223.0 1st Qu.: 795.8

Mn :114 GLQ :418 Median : 383.5 GLQ : 14 Median : 0.00 Median : 477.5 Median : 991.5

No :953 LwQ : 74 Mean : 443.6 LwQ : 46 Mean : 46.55 Mean : 567.2 Mean :1057.4

NA's: 38 Rec :133 3rd Qu.: 712.2 Rec : 54 3rd Qu.: 0.00 3rd Qu.: 808.0 3rd Qu.:1298.2

Unf :430 Max. :5644.0 Unf :1256 Max. :1474.00 Max. :2336.0 Max. :6110.0

NA's: 37 NA's: 38

Heating HeatingQC CentralAir Electrical X1stFlrSF X2ndFlrSF LowQualFinSF GrLivArea

Floor: 1 Ex:741 N: 95 FuseA: 94 Min. : 334 Min. : 0 Min. : 0.000 Min. : 334

GasA :1428 Fa: 49 Y:1365 FuseF: 27 1st Qu.: 882 1st Qu.: 0 1st Qu.: 0.000 1st Qu.:1130

GasW : 18 Gd:241 FuseP: 3 Median :1087 Median : 0 Median : 0.000 Median :1464

Grav : 7 Po: 1 Mix : 1 Mean :1163 Mean : 347 Mean : 5.845 Mean :1515

OthW : 2 TA:428 SBrkr:1334 3rd Qu.:1391 3rd Qu.: 728 3rd Qu.: 0.000 3rd Qu.:1777

Wall : 4 NA's : 1 Max. :4692 Max. :2065 Max. :572.000 Max. :5642

BsmtFullBath BsmtHalfBath FullBath HalfBath BedroomAbvGr KitchenAbvGr KitchenQual

Min. :0.0000 Min. :0.00000 Min. :0.000 Min. :0.0000 Min. :0.000 Min. :0.000 Ex:100

1st Qu.:0.0000 1st Qu.:0.00000 1st Qu.:1.000 1st Qu.:0.0000 1st Qu.:2.000 1st Qu.:1.000 Fa: 39

Median :0.0000 Median :0.00000 Median :2.000 Median :0.0000 Median :3.000 Median :1.000 Gd:586

Mean :0.4253 Mean :0.05753 Mean :1.565 Mean :0.3829 Mean :2.866 Mean :1.047 TA:735

3rd Qu.:1.0000 3rd Qu.:0.00000 3rd Qu.:2.000 3rd Qu.:1.0000 3rd Qu.:3.000 3rd Qu.:1.000

Max. :3.0000 Max. :2.00000 Max. :3.000 Max. :2.0000 Max. :8.000 Max. :3.000

TotRmsAbvGrd Functional Fireplaces FireplaceQu GarageType GarageYrBlt GarageFinish GarageCars

Min. : 2.000 Maj1: 14 Min. :0.000 Ex : 24 2Types : 6 Min. :1900 Fin :352 Min. :0.000

1st Qu.: 5.000 Maj2: 5 1st Qu.:0.000 Fa : 33 Attchd :870 1st Qu.:1961 RFn :422 1st Qu.:1.000

Median : 6.000 Min1: 31 Median :1.000 Gd :380 Basment: 19 Median :1980 Unf :605 Median :2.000

Mean : 6.518 Min2: 34 Mean :0.613 Po : 20 BuiltIn: 88 Mean :1979 NA's: 81 Mean :1.767

3rd Qu.: 7.000 Mod : 15 3rd Qu.:1.000 TA :313 CarPort: 9 3rd Qu.:2002 3rd Qu.:2.000

Max. :14.000 Sev : 1 Max. :3.000 NA's:690 Detchd :387 Max. :2010 Max. :4.000

Typ :1360 NA's : 81 NA's :81

GarageArea GarageQual GarageCond PavedDrive WoodDeckSF OpenPorchSF EnclosedPorch

Min. : 0.0 Ex : 3 Ex : 2 N: 90 Min. : 0.00 Min. : 0.00 Min. : 0.00

1st Qu.: 334.5 Fa : 48 Fa : 35 P: 30 1st Qu.: 0.00 1st Qu.: 0.00 1st Qu.: 0.00

Median : 480.0 Gd : 14 Gd : 9 Y:1340 Median : 0.00 Median : 25.00 Median : 0.00

Mean : 473.0 Po : 3 Po : 7 Mean : 94.24 Mean : 46.66 Mean : 21.95

3rd Qu.: 576.0 TA :1311 TA :1326 3rd Qu.:168.00 3rd Qu.: 68.00 3rd Qu.: 0.00

Max. :1418.0 NA's: 81 NA's: 81 Max. :857.00 Max. :547.00 Max. :552.00

X3SsnPorch ScreenPorch PoolArea PoolQC Fence MiscFeature MiscVal

Min. : 0.00 Min. : 0.00 Min. : 0.000 Ex : 2 GdPrv: 59 Gar2: 2 Min. : 0.00

1st Qu.: 0.00 1st Qu.: 0.00 1st Qu.: 0.000 Fa : 2 GdWo : 54 Othr: 2 1st Qu.: 0.00

Median : 0.00 Median : 0.00 Median : 0.000 Gd : 3 MnPrv: 157 Shed: 49 Median : 0.00

Mean : 3.41 Mean : 15.06 Mean : 2.759 NA's:1453 MnWw : 11 TenC: 1 Mean : 43.49

3rd Qu.: 0.00 3rd Qu.: 0.00 3rd Qu.: 0.000 NA's :1179 NA's:1406 3rd Qu.: 0.00

Max. :508.00 Max. :480.00 Max. :738.000 Max. :15500.00

MoSold YrSold SaleType SaleCondition SalePrice

Min. : 1.000 Min. :2006 WD :1267 Abnorml: 101 Min. : 34900

1st Qu.: 5.000 1st Qu.:2007 New : 122 AdjLand: 4 1st Qu.:129975

Median : 6.000 Median :2008 COD : 43 Alloca : 12 Median :163000

Mean : 6.322 Mean :2008 ConLD : 9 Family : 20 Mean :180921

3rd Qu.: 8.000 3rd Qu.:2009 ConLI : 5 Normal :1198 3rd Qu.:214000

Max. :12.000 Max. :2010 ConLw : 5 Partial: 125 Max. :755000

(Other): 9

vars n mean sd median trimmed mad min max range skew kurtosis se

Id 1 1460 730.50 421.61 730.5 730.50 541.15 1 1460 1459 0.00 -1.20 11.03

MSSubClass 2 1460 56.90 42.30 50.0 49.15 44.48 20 190 170 1.40 1.56 1.11

MSZoning\* 3 1460 4.03 0.63 4.0 4.06 0.00 1 5 4 -1.73 6.25 0.02

LotFrontage 4 1201 70.05 24.28 69.0 68.94 16.31 21 313 292 2.16 17.34 0.70

LotArea 5 1460 10516.83 9981.26 9478.5 9563.28 2962.23 1300 215245 213945 12.18 202.26 261.22

Street\* 6 1460 2.00 0.06 2.0 2.00 0.00 1 2 1 -15.49 238.01 0.00

Alley\* 7 91 1.45 0.50 1.0 1.44 0.00 1 2 1 0.20 -1.98 0.05

LotShape\* 8 1460 2.94 1.41 4.0 3.05 0.00 1 4 3 -0.61 -1.60 0.04

LandContour\* 9 1460 3.78 0.71 4.0 4.00 0.00 1 4 3 -3.16 8.65 0.02

Utilities\* 10 1460 1.00 0.03 1.0 1.00 0.00 1 2 1 38.13 1453.00 0.00

LotConfig\* 11 1460 4.02 1.62 5.0 4.27 0.00 1 5 4 -1.13 -0.59 0.04

LandSlope\* 12 1460 1.06 0.28 1.0 1.00 0.00 1 3 2 4.80 24.47 0.01

Neighborhood\* 13 1460 13.15 5.89 13.0 13.11 7.41 1 25 24 0.02 -1.06 0.15

Condition1\* 14 1460 3.03 0.87 3.0 3.00 0.00 1 9 8 3.01 16.34 0.02

Condition2\* 15 1460 3.01 0.26 3.0 3.00 0.00 1 8 7 13.14 247.54 0.01

BldgType\* 16 1460 1.49 1.20 1.0 1.14 0.00 1 5 4 2.24 3.41 0.03

HouseStyle\* 17 1460 4.04 1.91 3.0 4.03 1.48 1 8 7 0.31 -0.96 0.05

OverallQual 18 1460 6.10 1.38 6.0 6.08 1.48 1 10 9 0.22 0.09 0.04

OverallCond 19 1460 5.58 1.11 5.0 5.48 0.00 1 9 8 0.69 1.09 0.03

YearBuilt 20 1460 1971.27 30.20 1973.0 1974.13 37.06 1872 2010 138 -0.61 -0.45 0.79

YearRemodAdd 21 1460 1984.87 20.65 1994.0 1986.37 19.27 1950 2010 60 -0.50 -1.27 0.54

RoofStyl

e\* 22 1460 2.41 0.83 2.0 2.26 0.00 1 6 5 1.47 0.61 0.02

RoofMatl\* 23 1460 2.08 0.60 2.0 2.00 0.00 1 8 7 8.09 66.28 0.02

Exterior1st\* 24 1460 10.62 3.20 13.0 10.93 1.48 1 15 14 -0.72 -0.37 0.08

Exterior2nd\* 25 1460 11.34 3.54 14.0 11.65 2.97 1 16 15 -0.69 -0.52 0.09

MasVnrType\* 26 1452 2.76 0.62 3.0 2.73 0.00 1 4 3 -0.07 -0.13 0.02

MasVnrArea 27 1452 103.69 181.07 0.0 63.15 0.00 0 1600 1600 2.66 10.03 4.75

ExterQual\* 28 1460 3.54 0.69 4.0 3.65 0.00 1 4 3 -1.83 3.86 0.02

ExterCond\* 29 1460 4.73 0.73 5.0 4.95 0.00 1 5 4 -2.56 5.29 0.02

Foundation\* 30 1460 2.40 0.72 2.0 2.46 1.48 1 6 5 0.09 1.02 0.02

BsmtQual\* 31 1423 3.26 0.87 3.0 3.43 1.48 1 4 3 -1.31 1.27 0.02

BsmtCond\* 32 1423 3.81 0.66 4.0 4.00 0.00 1 4 3 -3.39 10.14 0.02

BsmtExposure\* 33 1422 3.27 1.15 4.0 3.46 0.00 1 4 3 -1.15 -0.39 0.03

BsmtFinType1\* 34 1423 3.73 1.83 3.0 3.79 2.97 1 6 5 -0.02 -1.39 0.05

BsmtFinSF1 35 1460 443.64 456.10 383.5 386.08 568.58 0 5644 5644 1.68 11.06 11.94

BsmtFinType2\* 36 1422 5.71 0.94 6.0 5.98 0.00 1 6 5 -3.56 12.32 0.02

BsmtFinSF2 37 1460 46.55 161.32 0.0 1.38 0.00 0 1474 1474 4.25 20.01 4.22

BsmtUnfSF 38 1460 567.24 441.87 477.5 519.29 426.99 0 2336 2336 0.92 0.46 11.56

TotalBsmtSF 39 1460 1057.43 438.71 991.5 1036.70 347.67 0 6110 6110 1.52 13.18 11.48

Heating\* 40 1460 2.04 0.30 2.0 2.00 0.00 1 6 5 9.83 110.98 0.01

HeatingQC\* 41 1460 2.54 1.74 1.0 2.42 0.00 1 5 4 0.48 -1.51 0.05

CentralAir\* 42 1460 1.93 0.25 2.0 2.00 0.00 1 2 1 -3.52 10.42 0.01

Electrical\* 43 1459 4.68 1.05 5.0 5.00 0.00 1 5 4 -3.06 7.49 0.03

X1stFlrSF 44 1460 1162.63 386.59 1087.0 1129.99 347.67 334 4692 4358 1.37 5.71 10.12

X2ndFlrSF 45 1460 346.99 436.53 0.0 285.36 0.00 0 2065 2065 0.81 -0.56 11.42

LowQualFinSF 46 1460 5.84 48.62 0.0 0.00 0.00 0 572 572 8.99 82.83 1.27

GrLivArea 47 1460 1515.46 525.48 1464.0 1467.67 483.33 334 5642 5308 1.36 4.86 13.75

BsmtFullBath 48 1460 0.43 0.52 0.0 0.39 0.00 0 3 3 0.59 -0.84 0.01

BsmtHalfBath 49 1460 0.06 0.24 0.0 0.00 0.00 0 2 2 4.09 16.31 0.01

FullBath 50 1460 1.57 0.55 2.0 1.56 0.00 0 3 3 0.04 -0.86 0.01

HalfBath 51 1460 0.38 0.50 0.0 0.34 0.00 0 2 2 0.67 -1.08 0.01

BedroomAbvGr 52 1460 2.87 0.82 3.0 2.85 0.00 0 8 8 0.21 2.21 0.02

KitchenAbvGr 53 1460 1.05 0.22 1.0 1.00 0.00 0 3 3 4.48 21.42 0.01

KitchenQual\* 54 1460 3.34 0.83 4.0 3.50 0.00 1 4 3 -1.42 1.72 0.02

TotRmsAbvGrd 55 1460 6.52 1.63 6.0 6.41 1.48 2 14 12 0.67 0.87 0.04

Functional\* 56 1460 6.75 0.98 7.0 7.00 0.00 1 7 6 -4.08 16.37 0.03

Fireplaces 57 1460 0.61 0.64 1.0 0.53 1.48 0 3 3 0.65 -0.22 0.02

FireplaceQu\* 58 770 3.73 1.13 3.0 3.80 1.48 1 5 4 -0.16 -0.98 0.04

GarageType\* 59 1379 3.28 1.79 2.0 3.11 0.00 1 6 5 0.76 -1.30 0.05

GarageYrBlt 60 1379 1978.51 24.69 1980.0 1981.07 31.13 1900 2010 110 -0.65 -0.42 0.66

GarageFinish\* 61 1379 2.18 0.81 2.0 2.23 1.48 1 3 2 -0.35 -1.41 0.02

GarageCars 62 1460 1.77 0.75 2.0 1.77 0.00 0 4 4 -0.34 0.21 0.02

GarageArea 63 1460 472.98 213.80 480.0 469.81 177.91 0 1418 1418 0.18 0.90 5.60

GarageQual\* 64 1379 4.86 0.61 5.0 5.00 0.00 1 5 4 -4.43 18.25 0.02

GarageCond\* 65 1379 4.90 0.52 5.0 5.00 0.00 1 5 4 -5.28 26.77 0.01

PavedDrive\* 66 1460 2.86 0.50 3.0 3.00 0.00 1 3 2 -3.30 9.22 0.01

WoodDeckSF 67 1460 94.24 125.34 0.0 71.76 0.00 0 857 857 1.54 2.97 3.28

OpenPorchSF 68 1460 46.66 66.26 25.0 33.23 37.06 0 547 547 2.36 8.44 1.73

EnclosedPorch 69 1460 21.95 61.12 0.0 3.87 0.00 0 552 552 3.08 10.37 1.60

X3SsnPorch 70 1460 3.41 29.32 0.0 0.00 0.00 0 508 508 10.28 123.06 0.77

ScreenPorch 71 1460 15.06 55.76 0.0 0.00 0.00 0 480 480 4.11 18.34 1.46

PoolArea 72 1460 2.76 40.18 0.0 0.00 0.00 0 738 738 14.80 222.19 1.05

PoolQC\* 73 7 2.14 0.90 2.0 2.14 1.48 1 3 2 -0.22 -1.90 0.34

Fence\* 74 281 2.43 0.86 3.0 2.48 0.00 1 4 3 -0.57 -0.88 0.05

MiscFeature\* 75 54 2.91 0.45 3.0 3.00 0.00 1 4 3 -2.93 10.71 0.06

MiscVal 76 1460 43.49 496.12 0.0 0.00 0.00 0 15500 15500 24.43 697.64 12.98

MoSold 77 1460 6.32 2.70 6 6.25 2.97 1 12 11 0.21 -0.41 0.07

YrSold 78 1460 2007.82 1.33 2008 2007.77 1.48 2006 2010 4 0.10 -1.19 0.03

SaleType\* 79 1460 8.51 1.56 9 8.92 0.00 1 9 8 -3.83 14.57 0.04

SaleCondition\* 80 1460 4.77 1.10 5 5.00 0.00 1 6 5 -2.74 6.82 0.03

SalePrice 81 1460 180921.20 79442.50 163000 170783.29 56338.80 34900 755000 720100 1.88 6.50 2079.11

> str(trainData)

'data.frame': 1460 obs. of 81 variables:

$ Id : int 1 2 3 4 5 6 7 8 9 10 ...

$ MSSubClass : int 60 20 60 70 60 50 20 60 50 190 ...

$ MSZoning : Factor w/ 5 levels "C (all)","FV",..: 4 4 4 4 4 4 4 4 5 4 ...

$ LotFrontage : int 65 80 68 60 84 85 75 NA 51 50 ...

$ LotArea : int 8450 9600 11250 9550 14260 14115 10084 10382 6120 7420 ...

$ Street : Factor w/ 2 levels "Grvl","Pave": 2 2 2 2 2 2 2 2 2 2 ...

$ Alley : Factor w/ 2 levels "Grvl","Pave": NA NA NA NA NA NA NA NA NA NA ...

$ LotShape : Factor w/ 4 levels "IR1","IR2","IR3",..: 4 4 1 1 1 1 4 1 4 4 ...

$ LandContour : Factor w/ 4 levels "Bnk","HLS","Low",..: 4 4 4 4 4 4 4 4 4 4 ...

$ Utilities : Factor w/ 2 levels "AllPub","NoSeWa": 1 1 1 1 1 1 1 1 1 1 ...

$ LotConfig : Factor w/ 5 levels "Corner","CulDSac",..: 5 3 5 1 3 5 5 1 5 1 ...

$ LandSlope : Factor w/ 3 levels "Gtl","Mod","Sev": 1 1 1 1 1 1 1 1 1 1 ...

$ Neighborhood : Factor w/ 25 levels "Blmngtn","Blueste",..: 6 25 6 7 14 12 21 17 18 4 ...

$ Condition1 : Factor w/ 9 levels "Artery","Feedr",..: 3 2 3 3 3 3 3 5 1 1 ...

$ Condition2 : Factor w/ 8 levels "Artery","Feedr",..: 3 3 3 3 3 3 3 3 3 1 ...

$ BldgType : Factor w/ 5 levels "1Fam","2fmCon",..: 1 1 1 1 1 1 1 1 1 2 ...

$ HouseStyle : Factor w/ 8 levels "1.5Fin","1.5Unf",..: 6 3 6 6 6 1 3 6 1 2 ...

$ OverallQual : int 7 6 7 7 8 5 8 7 7 5 ...

$ OverallCond : int 5 8 5 5 5 5 5 6 5 6 ...

$ YearBuilt : int 2003 1976 2001 1915 2000 1993 2004 1973 1931 1939 ...

$ YearRemodAdd : int 2003 1976 2002 1970 2000 1995 2005 1973 1950 1950 ...

$ RoofStyle : Factor w/ 6 levels "Flat","Gable",..: 2 2 2 2 2 2 2 2 2 2 ...

$ RoofMatl : Factor w/ 8 levels "ClyTile","CompShg",..: 2 2 2 2 2 2 2 2 2 2 ...

$ Exterior1st : Factor w/ 15 levels "AsbShng","AsphShn",..: 13 9 13 14 13 13 13 7 4 9 ...

$ Exterior2nd : Factor w/ 16 levels "AsbShng","AsphShn",..: 14 9 14 16 14 14 14 7 16 9 ...

$ MasVnrType : Factor w/ 4 levels "BrkCmn","BrkFace",..: 2 3 2 3 2 3 4 4 3 3 ...

$ MasVnrArea : int 196 0 162 0 350 0 186 240 0 0 ...

$ ExterQual : Factor w/ 4 levels "Ex","Fa","Gd",..: 3 4 3 4 3 4 3 4 4 4 ...

$ ExterCond : Factor w/ 5 levels "Ex","Fa","Gd",..: 5 5 5 5 5 5 5 5 5 5 ...

$ Foundation : Factor w/ 6 levels "BrkTil","CBlock",..: 3 2 3 1 3 6 3 2 1 1 ...

$ BsmtQual : Factor w/ 4 levels "Ex","Fa","Gd",..: 3 3 3 4 3 3 1 3 4 4 ...

$ BsmtCond : Factor w/ 4 levels "Fa","Gd","Po",..: 4 4 4 2 4 4 4 4 4 4 ...

$ BsmtExposure : Factor w/ 4 levels "Av","Gd","Mn",..: 4 2 3 4 1 4 1 3 4 4 ...

$ BsmtFinType1 : Factor w/ 6 levels "ALQ","BLQ","GLQ",..: 3 1 3 1 3 3 3 1 6 3 ...

$ BsmtFinSF1 : int 706 978 486 216 655 732 1369 859 0 851 ...

$ BsmtFinType2 : Factor w/ 6 levels "ALQ","BLQ","GLQ",..: 6 6 6 6 6 6 6 2 6 6 ...

$ BsmtFinSF2 : int 0 0 0 0 0 0 0 32 0 0 ...

$ BsmtUnfSF : int 150 284 434 540 490 64 317 216 952 140 ...

$ TotalBsmtSF : int 856 1262 920 756 1145 796 1686 1107 952 991 ...

$ Heating : Factor w/ 6 levels "Floor","GasA",..: 2 2 2 2 2 2 2 2 2 2 ...

$ HeatingQC : Factor w/ 5 levels "Ex","Fa","Gd",..: 1 1 1 3 1 1 1 1 3 1 ...

$ CentralAir : Factor w/ 2 levels "N","Y": 2 2 2 2 2 2 2 2 2 2 ...

$ Electrical : Factor w/ 5 levels "FuseA","FuseF",..: 5 5 5 5 5 5 5 5 2 5 ...

$ X1stFlrSF : int 856 1262 920 961 1145 796 1694 1107 1022 1077 ...

$ X2ndFlrSF : int 854 0 866 756 1053 566 0 983 752 0 ...

$ LowQualFinSF : int 0 0 0 0 0 0 0 0 0 0 ...

$ GrLivArea : int 1710 1262 1786 1717 2198 1362 1694 2090 1774 1077 ...

$ BsmtFullBath : int 1 0 1 1 1 1 1 1 0 1 ...

$ BsmtHalfBath : int 0 1 0 0 0 0 0 0 0 0 ...

$ FullBath : int 2 2 2 1 2 1 2 2 2 1 ...

$ HalfBath : int 1 0 1 0 1 1 0 1 0 0 ...

$ BedroomAbvGr : int 3 3 3 3 4 1 3 3 2 2 ...

$ KitchenAbvGr : int 1 1 1 1 1 1 1 1 2 2 ...

$ KitchenQual : Factor w/ 4 levels "Ex","Fa","Gd",..: 3 4 3 3 3 4 3 4 4 4 ...

$ TotRmsAbvGrd : int 8 6 6 7 9 5 7 7 8 5 ...

$ Functional : Factor w/ 7 levels "Maj1","Maj2",..: 7 7 7 7 7 7 7 7 3 7 ...

$ Fireplaces : int 0 1 1 1 1 0 1 2 2 2 ...

$ FireplaceQu : Factor w/ 5 levels "Ex","Fa","Gd",..: NA 5 5 3 5 NA 3 5 5 5 ...

$ GarageType : Factor w/ 6 levels "2Types","Attchd",..: 2 2 2 6 2 2 2 2 6 2 ...

$ GarageYrBlt : int 2003 1976 2001 1998 2000 1993 2004 1973 1931 1939 ...

$ GarageFinish : Factor w/ 3 levels "Fin","RFn","Unf": 2 2 2 3 2 3 2 2 3 2 ...

$ GarageCars : int 2 2 2 3 3 2 2 2 2 1 ...

$ GarageArea : int 548 460 608 642 836 480 636 484 468 205 ...

$ GarageQual : Factor w/ 5 levels "Ex","Fa","Gd",..: 5 5 5 5 5 5 5 5 2 3 ...

$ GarageCond : Factor w/ 5 levels "Ex","Fa","Gd",..: 5 5 5 5 5 5 5 5 5 5 ...

$ PavedDrive : Factor w/ 3 levels "N","P","Y": 3 3 3 3 3 3 3 3 3 3 ...

$ WoodDeckSF : int 0 298 0 0 192 40 255 235 90 0 ...

$ OpenPorchSF : int 61 0 42 35 84 30 57 204 0 4 ...

$ EnclosedPorch: int 0 0 0 272 0 0 0 228 205 0 ...

$ X3SsnPorch : int 0 0 0 0 0 320 0 0 0 0 ...

$ ScreenPorch : int 0 0 0 0 0 0 0 0 0 0 ...

$ PoolArea : int 0 0 0 0 0 0 0 0 0 0 ...

$ PoolQC : Factor w/ 3 levels "Ex","Fa","Gd": NA NA NA NA NA NA NA NA NA NA ...

$ Fence : Factor w/ 4 levels "GdPrv","GdWo",..: NA NA NA NA NA 3 NA NA NA NA ...

$ MiscFeature : Factor w/ 4 levels "Gar2","Othr",..: NA NA NA NA NA 3 NA 3 NA NA ...

$ MiscVal : int 0 0 0 0 0 700 0 350 0 0 ...

$ MoSold : int 2 5 9 2 12 10 8 11 4 1 ...

$ YrSold : int 2008 2007 2008 2006 2008 2009 2007 2009 2008 2008 ...

$ SaleType : Factor w/ 9 levels "COD","Con","ConLD",..: 9 9 9 9 9 9 9 9 9 9 ...

$ SaleCondition: Factor w/ 6 levels "Abnorml","AdjLand",..: 5 5 5 1 5 5 5 5 1 5 ...

$ SalePrice : int 208500 181500 223500 140000 250000 143000 307000 200000 129900 118000 ...

> table(trainData$MasVnrType)

BrkCmn BrkFace None Stone

15 445 864 128

> table(trainData$MasVnrType)

1 2 3 4

15 445 872 128