```
*{Construct Variables}.

*{Members per  room}.
if (hv012=0) hv012=hv013.
if (sh123>0) memroom=trunc(hv012/sh123).
if (sh123=0) memroom=hv012.
if (memroom>=98) memroom=98.
var labels memroom 'Number of members per room'.

*{Drinking water supply}.
compute h2oires=0.
   if (hv201=11) h2oires=1.
   var labels h2oires "Piped into dwelling".
compute h2oyrdr=0.
   if (hv201=12) h2oyrdr=1.
   var labels h2oyrdr "Piped into yard/plot".
compute h2opub=0.
   if (hv201=13) h2opub=1.
   var labels h2opub "Public tap/standpipe".
compute h2otube=0.
   if (hv201=21) h2otube=1.
   var labels h2otube "Tube well/Borehole".
compute h2pbwell=0.
   if (hv201=31) h2pbwell=1.
   var labels h2pbwell "Protected well".
compute h2powell=0.
   if (hv201=32) h2powell=1.
   var labels h2powell "Unprotected well".
compute h2pspng=0.
   if (hv201=41) h2pspng=1.
   var labels h2pspng "Protected spring".
compute h2uspng=0.
   if (hv201=42) h2uspng=1.
   var labels h2uspng "Unprotected spring".
compute h2osurf=0.
   if (hv201=43) h2osurf=1.
   var labels h2osurf "Surface water-river, lake, etc.".
compute h2orain=0.
   if (hv201=51) h2orain=1.
   var labels h2orain "Water from rain".
compute h2otrk=0.
   if (hv201=61) h2otrk=1.
   var labels h2otrk "Tanker truck".
compute h2ocrt=0.
   if (hv201=62) h2ocrt=1.
   var labels h2ocrt "Cart with small tank".
compute h2obtl=0.
   if (hv201=71) h2obtl=1.
   var labels h2obtl "Bottled water".
compute h2ooth=0.
   if (hv201=96) h2ooth=1.
   var labels h2ooth "Other water source".
```

```
*{Toilet facility}.
compute flush1=0.
   if (hv205=11) flush1=1.
   var labels flush1 "Modern flush toilet".
compute flush2=0.
   if (hv205=12) flush2=1.
   var labels flush2 "Traditional tank flush toilet".
compute flush3=0.
   if (hv205=13) flush3=1.
   var labels flush3 "Traditional bucket flush toilet".
compute latvip=0.
   if (hv205=21) latvip=1.
   var labels latvip "Ventilated Improved Pit latrine".
compute latbush=0.
   if (hv205=31) latbush=1.
   var labels latbush "No facility/bush/field".
compute latpail=0.
   if (hv205=42) latpail=1.
   var labels latpail "Bucket toilet".
compute latoth=0.
   if (hv205=96) latoth=1.
   var labels latoth "Other type toilet/latrine".


compute flush1s=0.
   if (hv205=11 and hv225=1) flush1s=1.
   var labels flush1s "Shared Modern flush toilet".
compute flush2s=0.
   if (hv205=12 and hv225=1) flush2s=1.
   var labels flush2s "Shared traditional tank flush toilet".
compute flush3s=0.
   if (hv205=13 and hv225=1) flush3s=1.
   var labels flush3s "Shared traditional bucket flush toilet".
compute latvips=0.
   if (hv205=21 and hv225=1) latvips=1.
   var labels latvips "Shared VIP latrine".
compute latoths=0.
   if (hv205>=21 and hv205<=96 and hv225=1) latoths=1.
   var labels latoths "Shared composting/bucket/hanging/other
toilet".


*{Flooring}.
compute dirtfloo=0.
   if (hv213=11) dirtfloo=1.
   var labels dirtfloo "Dirt or dung floor".
compute woodfloo=0.
    if (hv213=21) woodfloo=1.
   var labels woodfloo "Rudimentary wood plank floor".
compute palmfloo=0.
    if (hv213=22) palmfloo=1.
```

```
   var labels palmfloo "Palm, bamboo, reeds floor".
compute prqfloo=0.
   if (hv213=31) prqfloo=1.
   var labels prqfloo "Parquet, polished wood floor".
compute vinfloo=0.
   if (hv213=36) vinfloo=1.
   var labels vinfloo "Vinyl, asphalt strip floor".
compute tilefloo=0.
   if (hv213=32) tilefloo=1.
   var labels tilefloo "Ceramic tile floor".
compute ctilfloo=0.
   if (hv213=33) ctilfloo=1.
   var labels ctilfloo "Cement tile floor".
compute cemtfloo=0.
   if (hv213=34) cemtfloo=1.
   var labels cemtfloo "Cement floor".
compute rugfloo=0.
   if (hv213=35) rugfloo=1.
   var labels rugfloo "Carpeted floor".
compute othfloo=0.
   if (hv213=96) othfloo=1.
   var labels othfloo "Other type of flooring".

*{Walls}.


*{Roofing}.

*{Cooking Fuel}.

* {Type of cooking structure}.

*{Reset missing values to "does not have"}.
if (missing(hv206)) hv206=0.
if (missing(hv207)) hv207=0.
if (missing(hv208)) hv208=0.
if (missing(hv209)) hv209=0.
if (missing(hv210)) hv210=0.
if (missing(hv211)) hv211=0.
if (missing(hv212)) hv212=0.
if (missing(hv221)) hv221=0.
if (missing(hv243a)) hv243a=0.
if (missing(hv243b)) hv243b=0.
if (missing(hv243c)) hv243c=0.
if (missing(hv247)) hv247=0.

if (missing(hv246) or hv246=0) hv246a=0.
if (hv246a=98) hv246a=99.
if (missing(hv246) or hv246=0) hv246b=0.
if (hv246b=98) hv246b=99.
if (missing(hv246) or hv246=0) hv246c=0.
if (hv246c=98) hv246c=99.
```

```
if (missing(hv246) or hv246=0) hv246d=0.
if (hv246d=98) hv246d=99.
if (missing(hv246) or hv246=0) hv246e=0.
if (hv246e=98) hv246e=99.
if (missing(hv246) or hv246=0) hv246f=0.
if (hv246f=98) hv246f=99.
if (missing(hv246) or hv246=0) hv246g=0.
if (hv246g=98) hv246g=99.
if (missing(hv246) or hv246=0) hv246h=0.
if (hv246h=98) hv246h=99.
if (missing(hv246) or hv246=0) hv246i=0.
if (hv246i=98) hv246i=99.
if (missing(hv246) or hv246=0) hv246j=0.
if (hv246j=98) hv246j=99.
if (missing(hv246) or hv246=0) hv246k=0.
if (hv246k=98) hv246k=99.

*{Solid waste/garbage collection}.
compute garbcol=0.
  if (sh121=11) garbcol=1.
  var labels garbcol 'Garbage collected from home'.
compute garbcon=0.
  if (sh121=12) garbcon=1.
  var labels garbcon 'Garbage collected from street container'.
compute garbst=0.
  if (sh121=21) garbst=1.
  var labels garbst 'Garbage dumped into street/emply plot'.
compute garbwat=0.
  if (sh121=22) garbwat=1.
  var labels garbwat 'Garbage dumped into canal/drainage'.
compute garbbrn=0.
  if (sh121=31) garbbrn=1.
  var labels garbbrn 'Garbage is burned'.
compute garbfeed=0.
  if (sh121=41) garbfeed=1.
  var labels garbfeed 'Garbage fed to animals'.
compute garboth=0.
  if (sh121=96) garboth=1.
  var labels garboth 'Other garbage disposal'.


* {Type of dwelling and ownership}.
compute aptown=0.
if (sh101=1 and (sh102=1 or sh102=2)) aptown=1.
var labels aptown 'Lives in owned or jointly owned apartement'.
compute aptrent=0.
if (sh101=1 and (sh102=3 or sh102=6)) aptrent=1.
var labels aptrent 'Lives in rented or other apartement'.
compute hseown=0.
if (sh101=2 and (sh102=1 or sh102=2)) hseown=1.
var labels hseown 'Lives in owned or jointly owned free standing
house'.
```

```
compute hserent=0.
if (sh101=2 and (sh102=3 or sh102=6)) hserent=1.
var labels hserent 'Lives in rented or other free standing
house'.
compute othdwel=0.
if (sh101=6) othdwel=1.
var labels othdwel 'Lives in other type of dwelling'.


*{Reset missing values to "does not have"}.
if (missing(sh119c)) sh119c=0.
if (missing(sh119d)) sh119d=0.
if (missing(sh119e)) sh119e=0.
if (missing(sh119h) sh119h=0.
if (missing(sh119i) sh119i=0.
if (missing(sh119j)) sh119j=0.
if (missing(sh119k)) sh119k=0.

if (missing(sh120) or sh120=2) sh120=0.

if (missing(sh122b)) sh122b=0.
if (missing(sh122c)) sh122c=0.
if (missing(sh122d)) sh122d=0.
if (missing(sh122e)) sh122e=0.
if (missing(sh122f)) sh122f=0.
if (missing(sh122g)) sh122g=0.
if (missing(sh122h) sh122h=0.
if (missing(sh122i) sh122i=0.
if (missing(sh122j)) sh122j=0.
if (missing(sh122k)) sh122k=0.
if (missing(sh122l)) sh122l=0.
if (missing(sh122m)) sh122m=0.

if (missing(sh128)) sh128=0.
if (sh128=9998) sh128=9999.

execute.

FREQUENCIES
  VARIABLES=hv201 hv202 hv205 hv206 hv207 hv208 hv209 hv210 hv211
hv212 hv213
  hv221 hv225 hv243a hv243b hv243c hv244 hv246 hv246a hv246b
hv246c hv246d
  hv246e hv246f hv246g hv246h hv246i hv246j hv246k hv247 sh101
sh102 sh117
  sh119c sh119d sh119e sh119h sh119i sh119j sh119k sh120 sh121
sh122b sh122c
  sh122d sh122e sh122f sh122g sh122h sh122i sh122j sh122k sh122l
sh122m sh123
  sh128
  /ORDER=  ANALYSIS .
```

```
FREQUENCIES
  VARIABLES=memroom h2oires h2oyrdr h2opub h2otube h2pbwell
h2powell h2pspng
  h2uspng h2osurf h2orain h2otrk h2ocrt h2obtl h2ooth flush1
flush2 flush3
  latvip latbush latpail latoth flush1s flush2s flush3s latvips
latoths
  dirtfloo woodfloo palmfloo prqfloo vinfloo tilefloo ctilfloo
cemtfloo
  rugfloo othfloo garbcol garbcon garbst garbwat garbfeed garboth
aptown
  aptrent hseown hserent othdwel garbbrn
  /ORDER=  ANALYSIS .


FACTOR
  /VARIABLES hv206 hv207 hv208 hv209 hv210 hv211 hv212 hv221
hv243a hv243b
  hv243c hv247 sh119c sh119d sh119e sh119h sh119i sh119j sh119k
sh120 sh122b
  sh122c sh122d sh122e sh122f sh122g sh122h sh122i sh122j sh122k
sh122l sh122m
  memroom h2oires h2oyrdr h2opub h2otube h2pbwell h2powell
h2pspng h2uspng
  h2osurf h2otrk h2ocrt h2obtl h2ooth flush1 flush2 flush3 latvip
  latbush latpail latoth flush1s flush2s flush3s latvips latoths
dirtfloo
  woodfloo prqfloo vinfloo tilefloo ctilfloo cemtfloo rugfloo
othfloo garbcol
  garbcon garbst garbwat garbfeed garboth aptown aptrent hseown
hserent
  othdwel garbbrn  /MISSING MEANSUB /ANALYSIS hv206 hv207 hv208
hv209 hv210
  hv211 hv212 hv221 hv243a hv243b hv243c hv247 sh119c sh119d
sh119e sh119h
  sh119i sh119j sh119k sh120 sh122b sh122c sh122d sh122e sh122f
sh122g sh122h
  sh122i sh122j sh122k sh122l sh122m memroom h2oires h2oyrdr
h2opub h2otube
  h2pbwell h2powell h2pspng h2uspng h2osurf h2otrk h2ocrt h2obtl
  h2ooth flush1 flush2 flush3 latvip latbush latpail latoth
flush1s flush2s
  flush3s latvips latoths dirtfloo woodfloo prqfloo vinfloo
tilefloo ctilfloo
  cemtfloo rugfloo othfloo garbcol garbcon garbst garbwat
garbfeed garboth
  aptown aptrent hseown hserent othdwel garbbrn
  /PRINT UNIVARIATE INITIAL EXTRACTION FSCORE
  /CRITERIA FACTORS(1) ITERATE(25)
  /EXTRACTION PC
  /ROTATION NOROTATE
  /SAVE REG(ALL)
```

```
  /METHOD=CORRELATION .

compute hhmemwt=hv012*hv005/1000000.
weight by hhmemwt.
VARIABLE LABELS hhmemwt 'HH members weighting for Index' .

RANK
  VARIABLES=fac1_1  (A) /RANK /NTILES (5) /PRINT=YES
  /TIES=MEAN .

*FREQUENCIES
  VARIABLES=fac1_1  /FORMAT=NOTABLE
  /NTILES= 5
  /STATISTICS=STDDEV MINIMUM MAXIMUM MEAN MEDIAN MODE SKEWNESS
SESKEW
  KURTOSIS SEKURT
  /ORDER=  ANALYSIS .

frequencies variables=nfac1_1.

compute hhwt=hv005/1000000.
weight by hhwt.
VARIABLE LABELS hhwt 'HH weights' .
MEANS
  TABLES=hv206 hv207 hv208 hv209 hv210 hv211 hv212 hv221 hv243a
hv243b
  hv243c hv247 sh119c sh119d sh119e sh119h sh119i sh119j sh119k
sh120 sh122b
  sh122c sh122d sh122e sh122f sh122g sh122h sh122i sh122j sh122k
sh122l sh122m
  memroom h2oires h2oyrdr h2opub h2otube h2pbwell h2powell
h2pspng h2uspng
  h2osurf h2otrk h2ocrt h2obtl h2ooth flush1 flush2 flush3 latvip
  latbush latpail latoth flush1s flush2s flush3s latvips latoths
dirtfloo
  woodfloo prqfloo vinfloo tilefloo ctilfloo cemtfloo rugfloo
othfloo garbcol
  garbcon garbst garbwat garbfeed garboth aptown aptrent hseown
hserent
  othdwel garbbrn
  by nfac1_1
  /CELLS MEAN COUNT STDDEV  .

compute hv271=fac1_1.
compute hv270=nfac1_1.

save outfile="assets.sav".

WEIGHT
  OFF.
FREQUENCIES
  VARIABLES=hv271
```

```
  /ORDER=  ANALYSIS .

GRAPH
  /HISTOGRAM(NORMAL)=fac1_1
  /TITLE= 'Distribution of Households by Wealth Scores' 'Egypt
2008'.
FREQUENCIES
  VARIABLES=fac1_1  /FORMAT=NOTABLE
  /NTILES= 5
  /STATISTICS=STDDEV MINIMUM MAXIMUM SEMEAN MEAN MEDIAN MODE
SKEWNESS SESKEW
  KURTOSIS SEKURT
  /ORDER=  ANALYSIS .


WRITE OUTFILE='scores.dat'
  TABLE
  /hhid hv270 fac1_1.
EXECUTE.
```