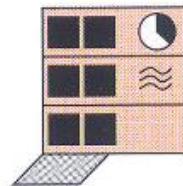
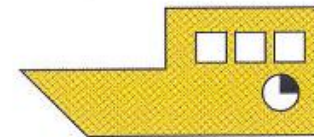


house
£400,000
garage
central heating
four bedrooms
good repair
large garden
Victoria 15 mins



Flat
£300,000
no garage
central heating
two bedrooms
poor repair
small garden
Victoria 20 mins



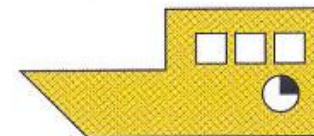
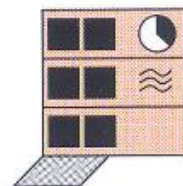
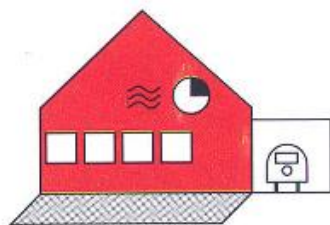
houseboat
£200,000
no garage
no central heating
three bedrooms
good repair
no garden
Victoria 15 mins

An icon summarising the values of several heterogeneous variables for a given item in a collection.

Multidimensional icons
R. Spence (2001)

[in] R. Spence, Information Visualisation, Addison-Wesley 2001

shape of an icon



type

house	Flat	houseboat
£400,000	£300,000	£200,000
garage	no garage	no garage
central heating	central heating	no central heating
four bedrooms	two bedrooms	three bedrooms
good repair	poor repair	good repair
large garden	small garden	no garden
Victoria 15 mins	Victoria 20 mins	Victoria 15 mins

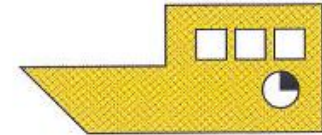
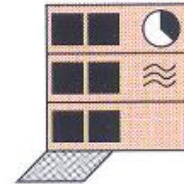
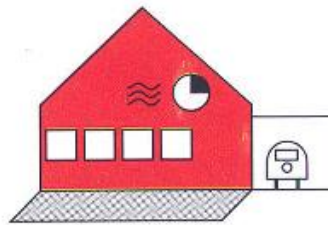
Categorical data (nominal).

< <https://www.formpl.us/blog/categorical-data> >

Multidimensional icons
R. Spence (2001)

[in] R. Spence, Information Visualisation, Addison-Wesley 2001

colour



rent

house

£400,000

garage

central heating

four bedrooms

good repair

large garden

Victoria 15 mins

Flat

£300,000

no garage

central heating

two bedrooms

poor repair

small garden

Victoria 20 mins

houseboat

£200,000

no garage

no central heating

three bedrooms

good repair

no garden

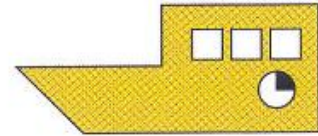
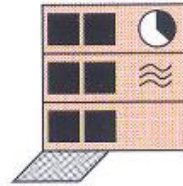
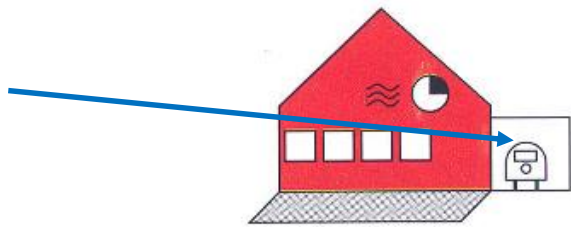
Victoria 15 mins

Quantitative data.

Multidimensional icons
R. Spence (2001)

[in] R. Spence, Information Visualisation, Addison-Wesley 2001

pictogram



garage

house	Flat	houseboat
£400,000	£300,000	£200,000
garage	no garage	no garage
central heating	central heating	no central heating
four bedrooms	two bedrooms	three bedrooms
good repair	poor repair	good repair
large garden	small garden	no garden
Victoria 15 mins	Victoria 20 mins	Victoria 15 mins

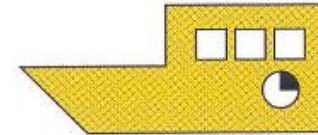
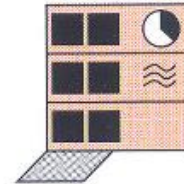
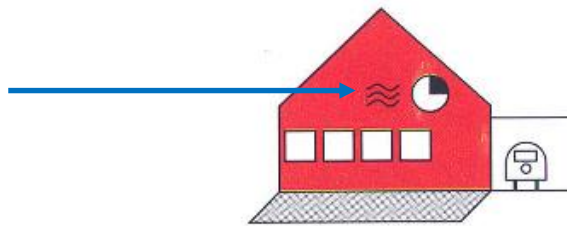
Boolean (~categorical).

Multidimensional icons
R. Spence (2001)

[in] R. Spence, Information Visualisation, Addison-Wesley 2001



pictogram



heating

house
 £400,000
 garage
 central heating
 four bedrooms
 good repair
 large garden
 Victoria 15 mins

Flat
 £300,000
 no garage
 central heating
 two bedrooms
 poor repair
 small garden
 Victoria 20 mins

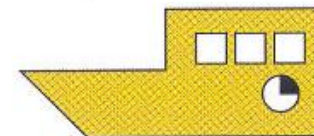
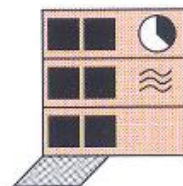
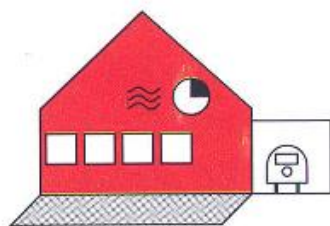
houseboat
 £200,000
 no garage
 no central heating
 three bedrooms
 good repair
 no garden
 Victoria 15 mins

Boolean (~categorical).

Multidimensional icons
R. Spence (2001)

[in] R. Spence, Information Visualisation, Addison-Wesley 2001

number of windows



number of bedrooms

house
£400,000
garage
central heating
four bedrooms
good repair
large garden
Victoria 15 mins

Flat
£300,000
no garage
central heating
two bedrooms
poor repair
small garden
Victoria 20 mins

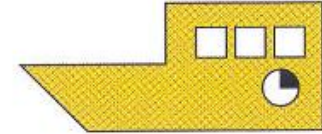
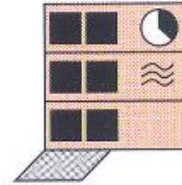
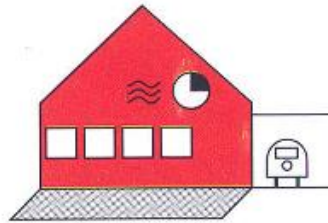
houseboat
£200,000
no garage
no central heating
three bedrooms
good repair
no garden
Victoria 15 mins

Quantitative data.
(could be seen as ordinal data)

Multidimensional icons
R. Spence (2001)

[in] R. Spence, Information Visualisation, Addison-Wesley 2001

colour of windows



state of the object

house
£400,000
garage
central heating
four bedrooms
good repair
large garden
Victoria 15 mins

Flat
£300,000
no garage
central heating
two bedrooms
poor repair
small garden
Victoria 20 mins

houseboat
£200,000
no garage
no central heating
three bedrooms
good repair
no garden
Victoria 15 mins

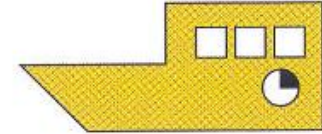
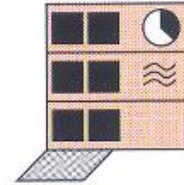
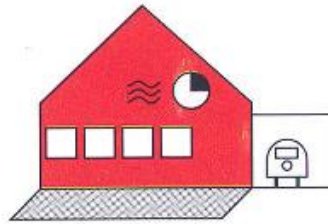
Categorical data (ordinal).

< <https://www.formpl.us/blog/categorical-data> >

Multidimensional icons
R. Spence (2001)

[in] R. Spence, Information Visualisation, Addison-Wesley 2001

*Presence / size
of a grey trapezium
(parallelogram)*



house
£400,000
garage
central heating
four bedrooms
good repair
large garden
Victoria 15 mins

Flat
£300,000
no garage
central heating
two bedrooms
poor repair
small garden
Victoria 20 mins

houseboat
£200,000
no garage
no central heating
three bedrooms
good repair
no garden
Victoria 15 mins

garden

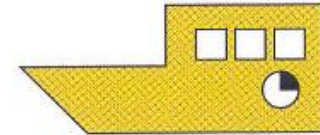
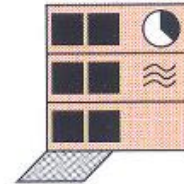
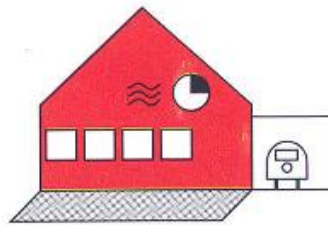
Categorical data (ordinal).

< <https://www.formpl.us/blog/categorical-data> >

*Multidimensional icons
R. Spence (2001)*

[in] R. Spence, Information Visualisation, Addison-Wesley 2001

clock face



house
 £400,000
 garage
 central heating
 four bedrooms
 good repair
 large garden
 Victoria 15 mins

Flat
 £300,000
 no garage
 central heating
 two bedrooms
 poor repair
 small garden
 Victoria 20 mins

houseboat
 £200,000
 no garage
 no central heating
 three bedrooms
 good repair
 no garden
 Victoria 15 mins

proximity of a railway station

Quantitative (time-oriented) data.

*Multidimensional icons
R. Spence (2001)*

[in] R. Spence, Information Visualisation, Addison-Wesley 2001