

Discrete data/discrete variables

Quantitative data can be discrete or continuous. A discrete variable has a set value. Discrete variables have either a finite number of possible values or a countable number of possible values. They are whole numbers.

Example

The number of coins in a jar is a discrete variable.



Continuous data/continuous variables

Continuous variables can take any value within a given range. Continuous variables are measured.

Example

The time it takes to get to the college or the height of students at Dorset College.



Exercise

Identify whether the following variables are discrete or continuous.

- (i) The number of goals scored in the All Ireland football final in 2013 _____
- (ii) The length of a leaf _____
- (iii) The number of people in your family _____
- (iv) The length of a piece of wire _____
- (v) The speed of a car _____
- (vi) The number of cars in a car park _____
- (vii) The number on a speed limit sign _____
- (viii) The outcome of rolling a dice _____
- (ix) The volume of oil in a drum _____
- (x) The weight of students in statistics class _____
- (xi) The numbers of chocolates in a box _____

2. Look at the table below. Is life expectancy discrete or continuous data? How about population?



Table 1

Country	Government Type	Life Expectancy (years)	Population (in millions)
Australia	Democratic	80.26	19.9
Canada	Confederation	79.96	32.5
France	Republic	79.44	60.4
Morocco	Constitutional Monarchy	70.35	32.2
Poland	Republic	74.16	38.6
Sri Lanka	Republic	72.89	19.9
United States	Federal Republic	77.43	293.0

Source: CIA World Factbook

3. Look at these charts. Identify whether the variables are qualitative, discrete or continuous.



Model	Size (in.)	Screen Type	Price (\$)
Sanyo #PDP42H2W	42	Plasma	2994
Panasonic #PT-47WX54	47	Projection	1072
Tatung #P50BSAT	50	Plasma	4248
RCA #HD50LPW42	50	Projection	2696
RCA #D52W19	52	Projection	1194
JVC #HD52Z575	52	Projection	2850
Sony #KDF-60XS955	60	Projection	4100

Sources: walmart.com and sears.com



Model	Body Style	Weight (pounds)	Number of Seats
M/Z3 Coupe	Coupe	2945	2
M/Z3 Roadster	Convertible	2690	2
3 Series	Coupe	2780	5
5 Series	Sedan	3450	5
7 Series	Sedan	4255	5
Z8	Convertible	3600	2

Source: Car and Driver magazine