

Inspection Method.

When frequencies of a continuous series increase and decrease in some systematic order, the modal class may be found merely by an inspection of the series. The following illustration is an example of such series where modal class is found by inspection. Having found the modal class, the actual value of the mode is calculated using the formula given ~~above~~ below.

$$Z = L_1 + \frac{f_1 - f_0}{2f_1 - f_0 - f_2} \times i$$

Z = value of the mode.

L_1 = lower limit of the modal class.

f_1 = The frequency of the modal class.

f_0 = The frequency of pre modal class

f_2 = frequency of the next higher class or post. modal class

i = class interval of modal class.

Illustration

Class Interval	0-10	10-20	20-30	30-40	40-50
Frequency	2	5	7	5	2

Soln

	Class Interval	Frequency
	0-10	2
	10-20	5 — f_0
Modal Class	<u>20-30</u>	<u>7</u> — f_1
	30-40	5 — f_2
	40-50	2

A glance at the series reveals that 20-30 is the modal class because it has the maximum frequency, i.e. 7. Following is used to calculate modal value.

$$Z = L + \frac{f_1 - f_0}{2f_1 - f_0 - f_2} \times i$$

$$= 20 + \frac{7 - 5}{2(7) - 5 - 5} \times 10$$

$$= 20 + \frac{2}{14 - 10} \times 10$$

$$= 20 + \frac{20}{4} =$$

$$= 20 + 5 = 25$$

$$\text{Mode}(Z) = 25$$