A conceptual illustration of obtaining the seasonal index and de-seasonalized data

Original month/year data	Take the average of two consecutive 12-month moving averages [e.g. av of JanY1 to DecY1 and FebY1 to JanY2,…] (--shorter term fluctuations are removed)	The seasonal-irregulars
TCSI : (A)	TC :(B)	SI :(A)/(B)
D1		
D2		
…		
D6		
D7	MA1	SI1
D8	MA2	SI2
…	…	…
D52	MA46	SI46
D53	MA47	SI47
…		
D60		

1. Collate (a)/(b) for each of the months Jan, Feb, Mar etc. ***over*** the several years
2. Get the averages m(Jan), m(Feb), …etc. [Irregulars are removed in so doing].
3. Get the average of these 12 m's. (= M). For each of the figures m(Jan), m(Feb),..etc divide by M and multiple by 100, We get the seasonal index for each of the months.
4. Dividing the original monthly data by the relevant (seasonal index/100) we get the de-seasonalized data for the month/year in question.

This is a crude description of the essential procedures of X-12.

(X-12 ARIMA is to retroject data earlier than D1 and project data later than D60 using the ARIMA method so that more data points can be used for the calculation of the seasonal indices.)