



Start-Tech Academy

Seasonality

Seasonality is the presence of variations that occur at specific regular intervals less than a year, such as weekly, monthly, or quarterly.

Seasonality

Reasons

- Weather,
- Vacation,
- Holidays

Examples

- Ice cream sales
- Christmas sales

Solution

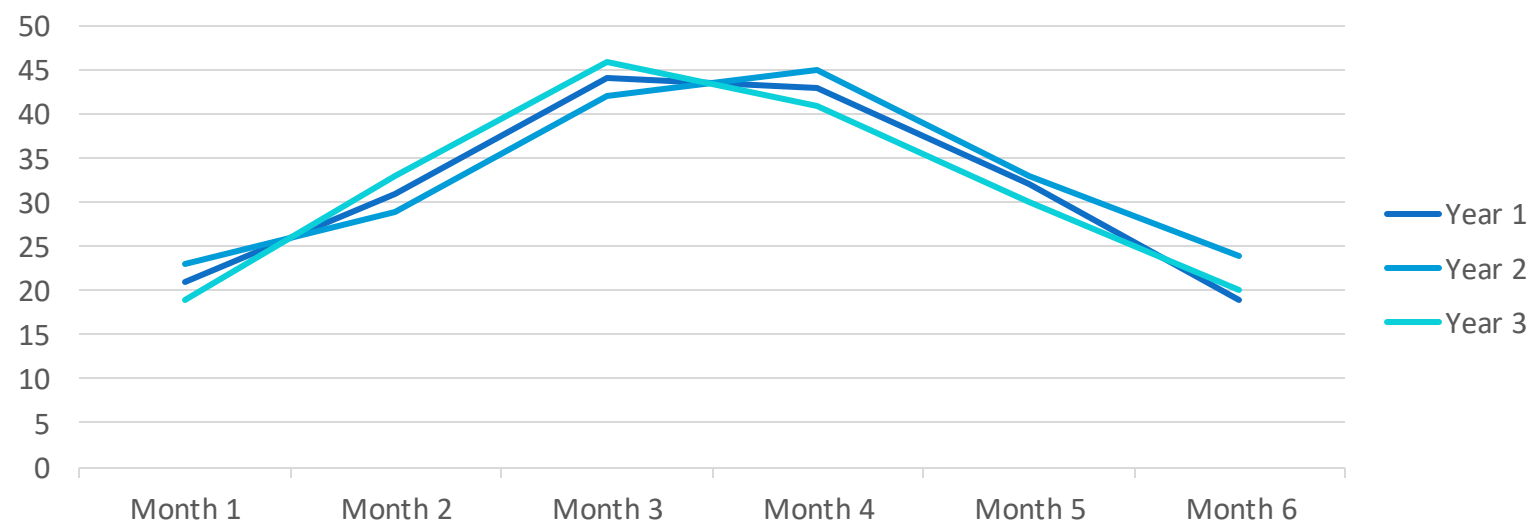
- Calculate multiplication factor for each month as $m = \mu_{Year} \div \mu_{Month}$
- Multiply each observation with its multiplication factor



Seasonality

Example

	Year 1	Year 2	Year 3
Month 1	21	23	19
Month 2	31	29	33
Month 3	44	42	46
Month 4	43	45	41
Month 5	32	33	30
Month 6	19	24	20



Seasonality

Example

	Year 1	Year 2	Year 3	Factor
Month 1	21	23	19	1.521164
Month 2	31	29	33	1.030466
Month 3	44	42	46	0.72601
Month 4	43	45	41	0.742894
Month 5	32	33	30	1.008772
Month 6	19	24	20	1.521164



	Year 1	Year 2	Year 3
Month 1	31.94	34.99	28.9
Month 2	31.94	29.88	34.01
Month 3	31.94	30.49	33.4
Month 4	31.94	33.43	30.46
Month 5	32.28	33.29	30.26
Month 6	28.90	36.51	30.42

