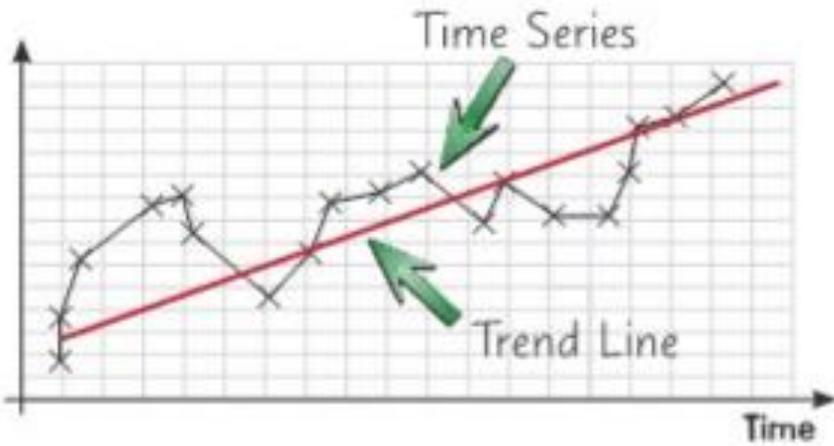


# Time Series Analysis

## Examples and key information



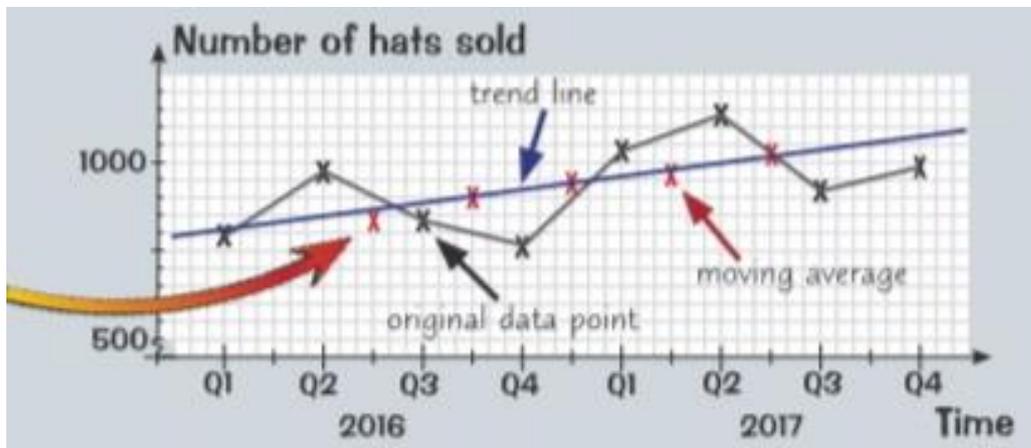
### Key words

- seasonal trend
- cyclic trend
- extrapolate,
- average
- mode
- median
- arithmetic mean
- weighted mean
- predictions

| 2016 |     |     |     | 2017 |      |     |     |
|------|-----|-----|-----|------|------|-----|-----|
| Q1   | Q2  | Q3  | Q4  | Q1   | Q2   | Q3  | Q4  |
| 780  | 970 | 840 | 760 | 1030 | 1140 | 920 | 990 |

1<sup>st</sup> average =  $(780 + 970 + 840 + 760)/4$

2<sup>nd</sup> average =  $(970 + 840 + 760 + 1030)/4$



**SEASONAL EFFECT = REAL VALUE — VALUE FROM TREND LINE**

Success Criteria: Scatter Diagrams & Correlation

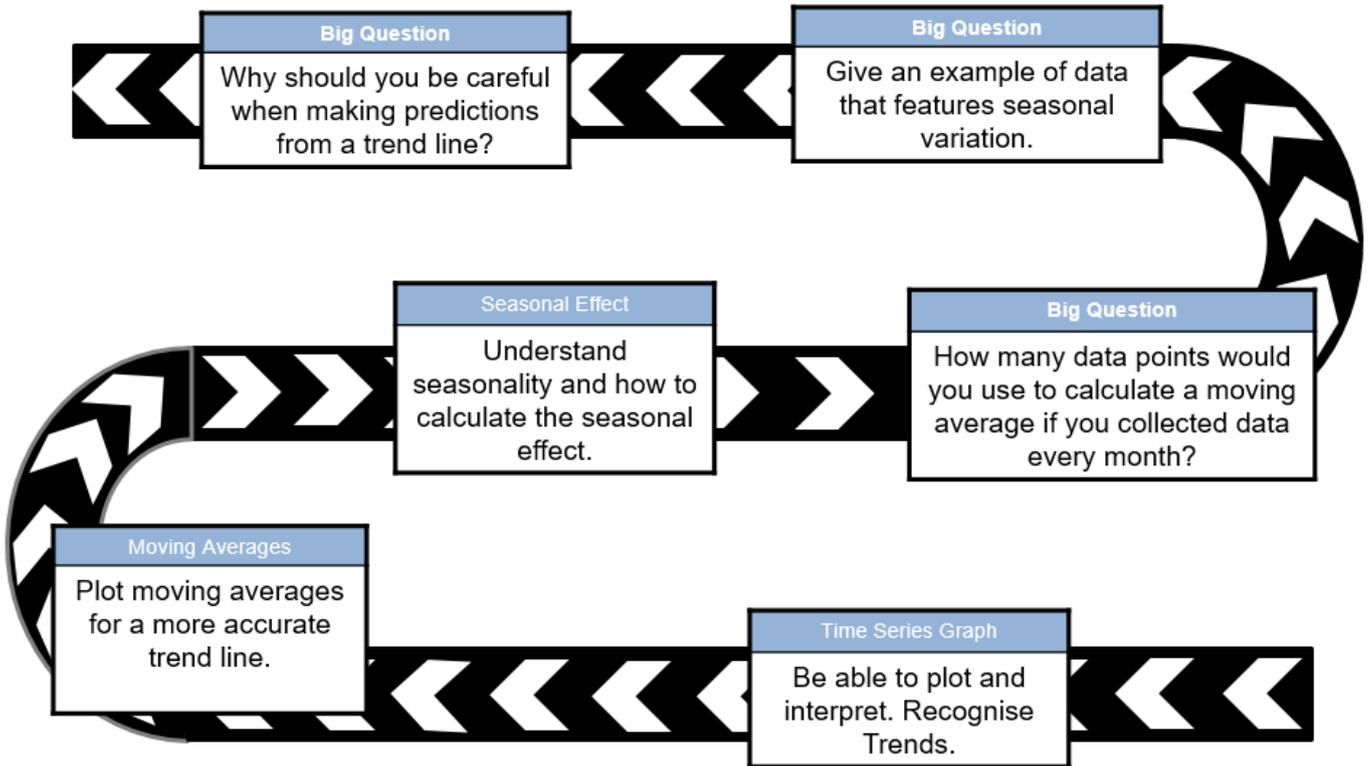
I can...

If given moving averages to be able to plot them on a time series graph and make predictions.

Find the mean seasonal effect from a time series graph and use this to make predictions.

Think big.  
Chase dreams.  
Succeed together.

# Mathematics Learning Journey: Time Series Analysis



Achievement resilience   
 Community PERSEVERANCE Pride



|  |                               |
|--|-------------------------------|
| <p><b>DEFINITION</b></p><br><br><br><p><b>ETYMOLOGY/MORPHOLOGY</b></p> | <p><b>CHARACTERISTICS</b></p> |
| <p><b>EXAMPLES</b></p>   | <p><b>NON-EXAMPLES</b></p>    |