

## Stock Market Math Worksheet: Mean, Median, Mode, Range

### Stock Prices

| Stock         | Price (\$) |
|---------------|------------|
| CAVA          | 145        |
| Amazon (AMZN) | 147        |
| Nvidia (NVDA) | 142        |
| Target (TGT)  | 110        |

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### Questions

1. **Calculate the mean (average)** stock price for these four companies. Show your work.
2. **What is the median stock price?** Arrange the prices in order and find the middle value.
3. **Is there a mode** for these stock prices? Explain your answer.
4. **Determine the range** of the stock prices. What does this tell you about the variability?
5. **Which measure (mean, median, mode, range)** do you think would be most useful for an investor and why?

Let's explore the concepts of **mean, median, mode,** and **range** using the current stock prices of CAVA, Amazon, Nvidia, and Target. For simplicity, we'll use approximate integer values:

- **CAVA:** \$145
- **Amazon (AMZN):** \$147
- **Nvidia (NVDA):** \$142
- **Target (TGT):** \$110

These values are based on recent stock prices as of November 24, 2024.

**1. Mean (Average):** The mean is calculated by adding all the stock prices together and dividing by the number of stocks.

- **Calculation:**
  - Sum:  $\$145 + \$147 + \$142 + \$110 = \$544$
  - Number of stocks: 4
  - Mean:  $\$544 \div 4 = \$136$
- **Interpretation:** The average stock price among these four companies is **\$136**.

**2. Median (Middle Value):** The median is the middle value in an ordered dataset.

- **Ordered Prices:** \$110, \$142, \$145, \$147
- **Calculation:** With an even number of data points, the median is the average of the two middle numbers:
  - Middle values: \$142 and \$145
  - Median:  $(\$142 + \$145) \div 2 = \$143.50$
- **Interpretation:** The median stock price is **\$143.50**, indicating that half of the stocks are priced below this value and half above.

**3. Mode (Most Frequent Value):** The mode is the value that appears most frequently in a dataset.

- **Observation:** Each stock price is unique in this dataset.
- **Conclusion:** There is **no mode** since no price repeats.

**4. Range (Spread of Data):** The range is the difference between the highest and lowest values.

- **Calculation:**
  - Highest price: \$147
  - Lowest price: \$110
  - Range:  $\$147 - \$110 = \$37$
- **Interpretation:** The range of stock prices is **\$37**, showing the spread between the lowest and highest prices.

These measures provide different perspectives on the stock prices:

- The **mean** gives the overall average price.
- The **median** indicates the central tendency, less affected by extreme values.
- The **mode** shows the most common price, though it's not applicable here.
- The **range** highlights the variability in stock prices.

Understanding these concepts helps investors analyze stock data more effectively.