

# MATHEMATICS FINANCIAL OLYMPICS



## INTRODUCTION

Participants will use technology to create and manage a digital portfolio of investments. Every day you manage your finances or monetary resources. One way to manage and increase your finances is through an investment portfolio. An investment portfolio is a collection of investments or assets held by an individual person or company. Over time, these investments can either gain or lose value. When an investment gains value, you make money. When an investment loses value, you lose money.

How do you know which investments to make? Financially responsible individuals study the investment market and try to determine what investments are the best balance between risk and return. Studying the market can help you determine the best place to invest your money and prepare for future financial stability.

## OBJECTIVES

- Identify the difference between short-term and long-term gains and losses.
- Gain an understanding of the basic financial principles underlying the investment market.
- Use spreadsheet software to track and manage data.

## STEP-BY-STEP CHALLENGE

1. Teams will be given a fixed amount of capital to invest in the market. They will have 20 minutes to complete the following:
  - a. Purchase investments from the broker.
  - b. Enter the investments into the spreadsheet provided. Teams 13 and up will have to create their own formulas to calculate investment value. Teams ages 12 and under will have spreadsheets that are pre-calculated.

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2. ROUND ONE: Teams will be presented with market fluctuations (i.e. the value of No. 2 pencils has plummeted to 10 cents a share.) They will then have 10 minutes to trade/sell their investments to other teams and recalculate the value of their investments
3. ROUND TWO: Teams will be presented with new market investments and will have the option to purchase new investments. Teams will be given 10 minutes to purchase new investments and recalculate the value of their investments.
4. MARKET CLOSE: Teams will be presented with day-ending values of their investments and must calculate the final value of their investments.
5. Finally, teams will be asked to write a short reflection on the performance of their portfolio and what they learned about their investments. Reflections will be posted online. Instructions will be given by the challenge facilitator for posting.

### RESOURCES PROVIDED

All teams will be provided with computers equipped with the Excel program. Teams 12 and under will also be provided with fully functional, pre-formulated spreadsheets for entering information. At the start of each session each team will be given a pre-determined fixed amount of capital

### JUDGING

All teams will be judged using an identical rubric. Allowances have been made for age differences during the challenge. Judging will be completed by trained volunteers. Teams will be judged in effectiveness of investments made, teamwork, attitude and effort.

