

# Microsoft (NASDAQ: MSFT) and Percentage Change

**SUBMITTED BY:** Nina Hoe, University of Pennsylvania

**SUBJECT(S):** Computation

**GRADE LEVEL(S):** 9, 10, 11, 12

## ≡ OVERVIEW:

In this lesson, students read the Wharton Global Youth Program (WGYP) article, “In Your Face: Microsoft’s \$8.5 Billion Takeover of Skype,” and examine the performance of Microsoft stock during and around the acquisition. Students are introduced to and discuss the concept of stocks and calculate percentage changes between different days.

## ≡ WHARTON GLOBAL YOUTH PROGRAM ARTICLE:

- [“In Your Face: Microsoft’s \\$8.5 Billion Takeover of Skype”](#)

**Purpose:** The purpose of this lesson is for students to a) learn about stocks and b) learn how to calculate percentage changes.

## Common Core Standards

Mathematics, High School: Statistics & Probability, Interpreting Categorical & Quantitative Data, S-ID.7.

## Resources/Materials (including one or more WGYP articles):

- Computer(s) with Internet – if the teacher has Internet and can project the screen to the class, this is fine.

- Calculators
- Knowledge@Wharton Article: “[What’s Behind Microsoft’s \\$8.5 Billion Takeover of Skype?](#)”
- Wharton Global Youth Program Glossary: [Stock](#)

### Activity:

Have students read the Knowledge @ Wharton High School article titled “In Your Face: Microsoft’s \$8.5 Billion Takeover of Skype.” (5 mins, if not read for Computation 1)

Play the WGYG Glossary video for [Stock](#).

### Class Discussion (5 mins)

1. What is stock? Have students discuss the meaning of stocks. According to the video glossary, they are shares of ownership in a company. **(NOTE: This is very important for students to understand before beginning the lesson)**
2. Why do they change in value or price each day?
3. What are things that might affect the price of a stock?
4. Discuss a ticker symbol. The ticker symbol for the Microsoft Corporation is MSFT.

Bring up the [Google Finance page for MSFT](#) or show the picture below.

5. Discuss the different numbers shown in this screen. Encourage students to circle important numbers and write explanations.
6. Why might a stock close and open at different prices?
7. What is a percentage change and why is it important to know?

Have students work in small groups or pairs on the worksheet. They will need calculators.

**Student Worksheet: (Give students 20 mins to do the first part – MSFT. Students who finish early can move onto the EBAY part of the lesson. You may only have time to review the MSFT section as a class.)**



The picture above is a picture from Google Finance of the Microsoft Corporation (NASDAQ: MSFT) stock over a two-week period: May 9<sup>th</sup> – May 20<sup>th</sup>. As you know from the WGYF article, *In Your Face: Microsoft’s \$8.5 Billion Takeover of Skype*, Microsoft acquired Skype on Tuesday, May 10<sup>th</sup>.

1. What was the closing price of the stock on May 20<sup>th</sup>?

**(\$24.49)**

2. Approximate opening price of the stock on May 9<sup>th</sup>.

**(\$25.70)**

3. The \$8.5 billion acquisition happened on May 10<sup>th</sup>. Make some observations about what happened to the value of the stock on that date and over the following two weeks.

**(Answers will vary – the stock “went down,” decreased in value. Although, it looks like it decreased in value by less than \$1.)**

4. Based on the article, what might be some reasons for the performance of the stock?

**(Answers will vary – people are concerned that Microsoft overpaid for Skype.)**

## Calculating Percentage Change

On any given day, the value of a stock will fluctuate. Looking at the picture of the stock from May 9<sup>th</sup> – May 20<sup>th</sup>, it is clear that the stock price fell overall during this period of time. Also, specifically, it fell on May 20<sup>th</sup>, from market close on May 19<sup>th</sup> to its close on May 20<sup>th</sup>. The percentage change in the stock price in a day is one of the statistics commonly reported about a stock. According to this picture, on May 20<sup>th</sup>, the percentage change was -0.91%.

5. What does the negative sign indicate?

How was this value calculated?

In the case of stocks, let A and B represent the closing prices of a stock, where A is before B.

6. The price of the stock at market close on May 6<sup>th</sup> was \$25.87. What was the percentage change over the next two weeks? (Use the closing price from May 20<sup>th</sup>).

**(-5.19%)**

Use the Internet/Google Finance to lookup the price of the Microsoft Corporation stock today.

7. What has been the percentage change since the acquisition? (Use the closing price from May 9<sup>th</sup>, which was \$25.83.)

**(Answers will vary.)**

8. What has been the percentage change in the stock over the past year?

**(Answers will vary.)**

9. Obviously, companies and stock holders prefer when stock prices increase. Find a period of time when the MSFT stock increased in value. What were the dates? What was the percentage increase?

**(Answers will vary.)**

According to the Knowledge@Wharton Article, “What’s Behind Microsoft’s \$8.5 Billion Takeover of Skype?,” eBay (NASDAQ: EBAY) previously owned Skype. Ebay bought Skype in 2005, but for a variety of reasons sold 70% of it in 2009. Take a look at the performance of the eBay during the same time period.

Answer the same questions.



10. What was the closing price of the stock on May 20<sup>th</sup>?

**(\$32.48)**

11. Approximate the opening price of the stock on May 9<sup>th</sup>.

**(\$32.60)**

12. Microsoft’s \$8.5 billion acquisition of Skype happened on May 10<sup>th</sup>. Make some observations about what happened to the value of the eBay stock on that date and over the following two weeks.

**(Answers will vary – it shot up over night and then dropped back down)**

13. Based on the article, what might be some reasons for the performance of the stock?

***(Answers will vary)***

14. The price of the stock at market close on May 6th was \$32.68. What was the percentage change over the next two weeks? (Use the closing price from May 20th).

***(-0.61%)***

Use the Internet/Google Finance to lookup the price of the Microsoft Corporation stock today.

15. What has been the percentage change since the acquisition? Calculate this once using the closing price from May 9th, which was \$33.12 and the opening price from May 10<sup>th</sup> which was \$33.91. What do these two different numbers represent? Which number is more useful for understanding the situation? Why?

***(Answers will vary.)***

16. What has been the percentage change in the stock over the past year?

***(Answers will vary.)***

Possible Review:

Students may need to review the relationship between percentages and decimals.

In mathematics, a percentage is a way of expressing a number as a fraction of 100 (per cent meaning “per hundred” in Latin). To convert a decimal to a percentage, multiply by 100.

**Tying It All Together:**

1. Have students report back on their answers.
2. What questions still remain?

Class Discussion: (5 mins)

3. What happens to a company’s stock price if they acquire another company? ***(Nothing is for certain. In the case of Microsoft, the stock price went down, but it could be the***

***other way.)***

4. Why is it important to observe and understand the behavior of stocks and stock prices?

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